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Freeplay in videogames

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Freeplay in Videogames

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ABSTRACT

Freeplay is a creative and often spontaneous act of play, that sees players deviating from the primary objectives of a game and instantiating their own goals, rules, and game modes. From a literary standpoint, freeplay has been observed in children throughout the twentieth century, with many theorists resting upon generic definitions of play in order to conceptualise the phenomenon. This dissertation explores the role of freeplay in the context of videogames; encapsulating a plethora of examples and identifying key characteristics of the phenomenon.

An interpretive phenomenological study was conducted between May and June of 2015, with thirteen players (between the ages of 19 and 34) who were purposively selected to participate in extended interviews designed to gather information about participants' gameplay and freeplay experiences. Transcriptions of the interviews were then coded and analysed against seven key themes presented throughout the literature including *creativity*, *exploration*, *immersion*, *social*, *spontaneous*, *structure*, and *discretion*. Freeplay in videogames involves any activity voluntarily engaged in by a player, that is otherwise not a defined objective of the videogame. The genre and degree of openness of the videogame are not crucial factors that determine whether freeplay emerges; rather, freeplay can occur in any videogame in which the player wishes to engage. Freeplay occurs in multiple forms: as a spontaneous discovery of an action that is possible in a game that becomes a short-lived but fun activity, as an intended or additional set of rules designed by the player (or community) to adjust game difficulty and objectives, as an alternative game mode or, as creating different games inside of existing game titles. The phenomenon is often influenced by the actions and accomplishments of other players, with many instances being inspired by players watching videos posted to social media or actions of other players witnessed in game (primarily, multiplayer games).

Freeplay and gameplay present as a duality of play in videogames, with players drifting between defined gameplay objectives of the videogame, and player defined activities. This research reveals that players engage in freeplay in videogames to

prolong their engagement with the videogame, or to prolong their exposure to the state of flow with a particular emphasis on the instances of freeplay being social and spontaneous.

The primary intention of this study was to examine the phenomenon of freeplay as it occurs in the context of videogames by using an interpretive phenomenological approach. As a methodology, phenomenology and small-scale qualitative studies more generally cannot present statistically relevant results. However, the findings presented through many examples in this research justify formalisation of the construct of free play within the context of videogames. Building upon the findings presented here, future studies could deploy a qualitative focus group or quantitative survey as a means for furthering validity expanding meaning extracted from the study.

Keywords: *freeplay*, *videogames*, *phenomenology*, *play*, *games*, *flow theory*.

DECLARATION BY AUTHOR

This thesis is submitted to Bond University in fulfilment of the requirements of the degree of Master of Philosophy.

This thesis represents my own original work towards this research degree and contains no material which has been previously submitted for a degree or diploma at this University or any other institution, except where due acknowledgement is made.

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DEDICATION

For Mum.

ETHICS DECLARATION

The research associated with this thesis received ethics approval from the Bond University Human Research Ethics Committee. Ethics application number: 15210.

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Lastly, but certainly not least, I would like to thank you (the reader). May you find some merit or value in reading this dissertation. Perhaps you'll be a passionate gamer interested in freeplay, or you'll be a research student seeking to find a possible guide to the structure of a dissertation such as this, or you'll be someone I've guilt tripped into reading it! Regardless, your time and interest in my work is appreciated and I thank you.

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ABBREVIATIONS

- PVP – Player vs Player
- RPG – Role Playing Game
- FPS – First Person Shooter
- MOBA – Massively Online Battle Arena
- MMORPG – Massively Multiplayer Online Role Playing Game
- IPA - Interpretive Phenomenological Analysis

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Chapter 1: Introduction

The advent of what is now known as the videogame in the 1940's has seen the instinctual activity of play evolve through multiple generations of tools, technologies, and players (Donovan & Garriott, 2010). Evidence of this practice and evolution is seen throughout the history of games. For example, the game of chess, which originated during the Middle Ages, is a version of a game first played in India more than a millennium earlier (Davidson, 2012; Murray, 1913). Having gone through a series of iterative changes to the rules and structure, chess and other traditional games offer a diversity of configurations and states (Dormans, 2014). Each iteration of a game affords a variety of play opportunities, with players adapting to the rules and expanding the game and resulting play through instinct.

Of the hundreds of documented chess variations identified by Pritchard (1994), some feature modifications to the structure of the board, such as *Hexagonal Chess* (Gliński, 1936) and *Masonic Chess* (Dekle Sr., 1987). Other variants of chess exist where starting positions are changed. For example, in *Fischer Random Chess* (Fischer, 1996) the starting positions of non-pawn pieces for a player are randomised, with the opponent mirroring the layout.

Within the context of videogames, players are also able to influence and modify gameplay. This is the core principle of emergent gameplay (Juul, 2011; Sweetser, 2008), and demonstrates player agency (King & Krzywinska, 2006; Murray, 1997; Tanenbaum & Tanenbaum, 2009); the degree of control a player has over the game world. Just as chess has multiple variants, videogame players can change game objectives through a manipulation of the rules and mechanics of a videogame to create play that is different from that intended by the developer. *Project Gotham Racing* (Bizarre Creations, 2001), *Minecraft* (Mojang, 2009), *Grand Theft Auto V* (Rockstar Games, 2013), and *Halo 2* (Bungie Studios, 2004) are examples of videogames in which players have extended gameplay beyond the expectations of the developer. Players can change gameplay objectives and manipulate gameplay mechanics, bugs, and rules to accomplish a variety of freeplay activities. For

example, the act of super jumping in *Halo 2* allows players to manipulate a physics glitch – a unintended design or coding fault or malfunction in a digital application or game – to launch vehicles and objects into the air, thereby reaching locations in the game world not designed to be accessible. This glitch is exploited to bypass multiple aspects of the game and to gain advantages such as proximity mine climbing in *Deus Ex* (Ion Storm, 2000), the Rainbow Road Shortcut in *Mario Kart 64* (Nintendo, 1996) and Bucket Head Burglary in *The Elder Scrolls: Skyrim* (Bethesda Softworks, 2011), to name a few.

Freeplay that emerges in videogames is documented in the popular press (GameSpot, 2013; Hurley, 2015; Narcisse, 2015; Nernandez, 2014), with players sharing videos of their achievements via social media. In a recent YouTube video (Narcisse, 2015) a player can be seen riding a motorbike across a bridge in *Grand Theft Auto V*. On the surface, this would seem like a typical component of the game, however, the player devoted their attention to taking the motorbike over the top of this thin-framed bridge. The player would drive this vehicle up the side of the bridge, and drive as straight as possible, before falling off. After multiple unsuccessful attempts, the player is successful in accomplishing this goal within the confines of the game environment, and yet this outcome is independent of the developers' intended use. This example demonstrates the essence of freeplay in videogames. The player changed the primary objectives of the game, yet utilised the game and its affordances to accomplish something developers had not anticipated.

Despite the wide range of examples of such gameplay on the web, freeplay is not documented extensively in game studies literature. The principal objective of this research is to bridge that gap. Understanding the motivations of videogame players to participate in freeplay will extend the ludology literature, and may help game designers create exceptional and long-lived play experiences.

The purpose of this study is to explore freeplay in videogames and provide insight into the phenomena from the player's perspective. Videogame designers largely define how the player plays the game, with the medium persuading players towards certain actions (Bogost, 2007). Designers cannot predict every possible way players

interact and engage with the game, its environment, and mechanics (Sweetser, 2008). At most, a videogame designer can only present rules and activities that motivate the player towards a given action because play is a personal and unique experience governed by the player themselves. An interpretive phenomenological exploration will be performed to investigate the following research questions:

RQ_1 What is freeplay in videogames?

RQ_2 What are the characteristics of freeplay in videogames?

1.1 What is freeplay?

Freeplay, which has roots in child play psychology, reflects the notion of creative and spontaneous play, and is a concept that has been discussed generally by Nachmanovitch (1991) – discussing play and freeplay in relation to creativity and music. He likens it to the Sanskrit word “lila” which means “play”, but more specifically play that is associated with creation and destruction – divine play.

Minecraft, as a prime example of affording freeplay in a videogame, does not instruct nor guide players towards any particular action. Discounting the recently added *story mode* briefly, players are able to play the game as they see most appropriate. *Minecraft* can be used for all manner of purposes, including creating art, machinima, roleplay, and enacting intended game modes and custom games. Within the first few minutes’ of playing the game, players negotiate their goals and objectives. This is not play defined or stated by the game, but play very much influenced by the player. The more broadly accepted definitions of a game describe it is an activity governed by rules, seeing players working towards some stated goal or quantifiable outcome (Caillois, 1961; Crawford, 1984). *Minecraft* then, is a game with rules and limitations — physics systems, and interaction mechanics such as “water puts out fire” — but no clear goals. In essence, the fundamental purpose of *Minecraft* is to use it as a platform for creative experimentation and free exploration of ideas and play (Hooper & de Byl, 2014). The game does not define the activities, but it guides them towards a plethora of freeplay activities.

Minecraft is by no means the quintessential or only game that affords the phenomenon of freeplay. Games that are linear (that have set goals and tasks) are just as suitable as platforms for freeplay as games that are emergent, open, or non-linear. With respect to freeplay, the act itself is defined by the rules and challenges put in place by players. Provided there is creativity, players are able to freeplay. The only constraining element of freeplay with respect to linearity in games are the types and forms of freeplay that are possible. With more diversity in a game comes the increased likelihood that a range of freeplay behaviours and activities will be available to players. Within visually and mechanically simple games like *Tetris* (The Tetris Company LLC, 1984-), it is possible to set custom goals and challenges, such as attempting to group blocks by shape similarity or colour. These types of challenges do not exclusively manifest as something that is more fun or more engaging than the game as it is designed, but freeplay activities present as another form of challenge which helps to prolong the enjoyment of the game. External to the realm of videogames but still under the domain of play, freeplay can even be observed within traditional tabletop board or card games. Players can integrate their own custom "house rules" that in many cases are a form of freeplay; players take the base components of a game, and continue to build upon them and as such create something new. Whether the game supports it or not is often irrelevant, as it is the innovative spirit of the player that spurs freeplay.

Freeplay sees players pushing the boundaries of the game. Players are not punished for freeplaying in games. Games generally include some form of reward system, which is used to create a positive association of success, and inform the player of negative or unwanted behaviours — such as falling in a lava pit resulting in death, and losing lives. For players to routinely engage in freeplay across a plethora of videogames, the drive to push the boundaries of their gameplay must be motivated by elements of curiosity, the pursuit to prolong their gameplay, and a search for new activities to keep the game challenging and by extension, engaging. But just like any other form of gameplay, players can be rewarded for their freeplay behaviours extrinsically through players sharing their accomplishments, intrinsically (in the form of personal validation and accomplishment), and *unconsciously* by the game (where players gain an otherwise unfair advantage in the game).

Freeplay needs to be discussed not just in the context of games, but rather considered from the perspective of play. Play is a complex phenomenon that is continually redefined and adapted to multiple contexts (Hooper & de Byl, 2014; Sutton-Smith, 1997). The key to play theory is not in the attempt of trying to summarise it down to one all-encompassing definition. Rather, the key is in understanding all facets of play, from all perspectives and domains – and drawing inspiration from each as it applies to the individual and personal act and interpretation of play. Although there are many commonalities between each definition of play (Huizinga, 1949; Juul, 2009; Lehman & Witty, 1927; Parten, 1933), there are still many external contexts that will impact the definitions of play. These commonalities will be addressed in Chapter 2.

All participants interviewed had engaged in freeplay. As observed in this study, players take the building blocks of a videogame world (whether they are game designers, or not), and then define their own gameplay. The same behaviours can be seen in children playing with Lego blocks, or other building blocks or toys. Lego box sets typically include instructions for creating a particular design as featured on the cover, and most would likely follow those instructions. However, once construction has finished, the Lego model can be broken down into its individual pieces and then reassembled into something else entirely. A new object defined by the individual, or inspired by something they have seen from an external source.

A curious element of freeplay can also be considered from the perspective of the plethora of videogame choices available to players. As highlighted by some of the participants in this study, during the earlier days of videogames, players had fewer games to choose from and because of this they developed stronger attachments to those games through replay (Wolf, 2012; pg. 522) and freeplay. Of the players interviewed for this study, many expressed the role videogames played in their childhood and the role parents and family members played in making games available to them. Often, players received videogames as gifts for birthdays and other religious celebrations (such as Christmas), or were financially unable to afford purchasing a new game every few weeks or months. Participants engaged in a number of freeplay activities to maintain interest in the game and to keep

themselves occupied, keeping the game interesting. It is also of interest to note that even in the present videogame economy, many of those players interviewed expressed that although they have a wealth of games in their various libraries and collections, they still prefer to play a small selection of games and engage in freeplay activities under familiar conditions.

1.2 Contributions to the field

The research presented herein aims to explore the phenomenon of freeplay – the various activities engaged in by players that are not considered part of or a designed feature of the game – in the context of videogames. Specifically, this research will contribute to the fields of game studies, critical play, and game design more broadly. The findings from this study have the potential to contribute significant insights into broader debates surrounding gameplay, player types and modes of engagement, and would be of interest to game theorists, designers and developers.

The primary goal of this dissertation is to reveal the breadth of the freeplay phenomenon as it occurs in videogames. Freeplay is a domain that warrants further investigation, specifically following the advent of the videogame and the impact observable cases of freeplay have on all types of players. Furthering this, the dissertation will document instances of freeplay across numerous videogame genres. These freeplay examples will be sourced from participant interviews as featured in the study, but will combine these with additional examples from external sources, social media and popular culture. This dissertation will also provide an exploratory and preliminary discussion of freeplay motivations.

The analysis presented throughout this dissertation will reveal the attributes of freeplay that are afforded by videogames. These attributes provide insight into how videogame players engage in play and freeplay. Another outcome of this research is to further document the symbiotic relationship of gameplay and freeplay; where gameplay would be play designed and intended by the game, and freeplay would constitute all other secondary activities players engage in throughout play. Outside

of the literary domain, this research also aims to provide game designers and developers with insight into the prevalence of freeplay in videogames, with the intention of assisting creators to design videogames that encourage and nurture freeplay.

1.3 Structure of the dissertation

This dissertation is divided into six chapters, each representing a different stage of the research project. This first chapter, presents an introduction to the domain of freeplay and the context for which the research project takes place. It presents a justification for the research and the contributions flowing on from the completion of this research project.

In the second chapter, a literature review highlights key theories and work to date including in the domains of play, freeplay, games, emergence, emergent gameplay, and flow. The literature review culminates in the identification and summary of seven key themes conceptualised for freeplay which then form the basis for the research project and analysis of findings.

The third chapter outlines the methodology for this research project, detailing and justifying how an interpretive phenomenological approach was applied to the study. Participants were selected using purposive sampling techniques, and then extended interviews were performed and transcribed prior to analysis. Interview questions are presented in Appendix A.

The fourth chapter reveals the findings from the research. Thirteen participants were interviewed and an interpretive phenomenological approach was taken to analyse the interview transcripts. Key quotes and themes were identified and organised using the framework method based on the key characteristics identified at the conclusion of the literature review. Due to the number of quotes identified throughout this research, only a selection of quotes are presented in this chapter. Remaining quotes have been included in Appendix B.

The fifth chapter presents a discussion of the findings from the research, in which each of the key characteristics and themes are explained and discussed with reference to cases and examples identified from the research. Additional examples and instances, considered relevant by the researcher, are also included. The chapter concludes by deconstructing the phenomenon of freeplay and presents answers to the research questions.

The sixth and final chapter provides a conclusion for the research project, highlighting key outcomes from the study and further discussing the implications and concept of freeplay in the context of videogames. Avenues for further work, and means for continuing the investigation are also discussed in this chapter.

1.4 Summary

This chapter has presented an introduction to the phenomenon of freeplay that will be examined in this project. Of particular interest to this research is understanding the phenomenon of freeplay as it occurs in the context of videogames. Throughout this dissertation, theories of play and freeplay will be examined and then applied to the domain of videogames. From this, the characteristics of freeplay in videogames will be elucidated.

Chapter 2: Literature Review

This chapter presents a review of existing literature deemed relevant to the study and associated domains. A systematic literature review was performed (Ridley, 2012) which identified key scholarly works pertaining to the domains of videogames and computer games, player engagement and flow, play, gameplay, and freeplay. Numerous electronic databases were searched, using keywords and search phrases relevant to the aforementioned domains, including: Google Scholar, Ebsco, ProQuest, Sage, JSTOR Arts & Sciences, Taylor and Francis Online, Wiley Online Library and CiteSeer.

This chapter begins by exploring theories of play, presenting a history of play scholarship. Following from this, definitions of games will be discussed. This will integrate the bipartite relationship of play and games, with the correlated concepts of rules, interactivity and narratives that will culminate in an exploration of the *videogame*. Thirdly, gameplay and videogame player literature will be elucidated. This will include a summary of emergent gameplay and the associated fundamental theories of emergence. Following this, current literature on freeplay will be explored and linked with existing literature on play and associated theory. This includes an exposition of creativity theories. Finally, freeplay as applied to videogames will be discussed, linking together key concepts from the aforementioned sections to formulate the key themes as featured in this study.

Play is an instinctual quality (Groos, 1898; Groos, 1901) inherent in all species (Burghardt, 2005) that is older than culture itself (Huizinga, 1949; Stephenson, 1964). Play inspires us to learn, explore, experiment, and imagine, but is a domain sometimes ignored or neglected because of the apparent non-serious nature of the activity (Power, 1999). Our culture has evolved through play (Avedon & Sutton-Smith, 1971), providing an opportunity to role-play social situations (Fine, 2002; Parten, 1933), learn about ourselves and our world (Prensky, 2005), gain insight into complicated problems (Pepler & Ross, 1981; Ramani, 2002; Smith & Dutton, 1979; Tucker, 2014), explore worlds including our own (Pisula, 2008; Tuminaro & Redish,

2007), and to discover new means for perceiving, understanding, and theorising concepts (Barr, Noble & Biddle, 2007; Preyer, 1893).

Philosophers throughout history have produced a diverse range of conceptualisations for play. Early scholarship can be traced back to the times of Plato in Ancient Greece where play was described as both a spontaneous form of social interaction seen in children, and a philosophical and intellectual activity engaged in by adults (Danger, 2013). Plato viewed play as a life-long educational experience that evolved into a state of freeplay in adulthood (Krentz, 1998). The relationship between play and children in Ancient Greek culture can be seen throughout the Greek language itself. Play (*paidia*) derives from the term child (*pais*), as do the terms children (*paides*), education (*paideia*), sports (*paizei*), play involving toys (*paignia*), and to describe participation in physical activities, music and performances (*paizein*) (D'Angour, 2013).

In pursuing a holistic definition for play, it is clear that the activity of play is multidimensional. The essence of play is defined throughout a diverse set of disciplines (Hooper & de Byl, 2014; Sutton-Smith, 1997), including biology (Bateson, 2014; Bekoff & Byers, 1998; Fagen, 1981), child psychology (Lehman & Witty, 1927; Parten, 1933; Piaget, 1951; Vygotsky, 1978), art and creativity (Nachmanovitch, 1990; Shepard, 2012; Raphael-Leff, 2009), science and technology (Laszlo, 2004; Panksepp, 1998; Resnick, 2006), and game studies (Bartle, 1996, 2004; Brown & Vaughan, 2009; Juul, 2009; Kaye, 2012; Malaby, 2007; Taylor, 2006).

Freeplay, being a play-based activity, draws on concepts from play. It has been considered by prominent scholars in the domain as being akin to creative and spontaneous improvisation (Nachmanovitch, 1990), as a form of open-ended play (Tiemstra et al., 2011) that can be engaged in at will (Mandryk, 2001). These characteristics of freeplay extracted from the literature across the disciplines will be explored throughout this chapter.

2.1 Defining play

The most common definition of play cited in modern scholarship (Rodriguez, 2006) is that proposed by Johan Huizinga (1949) who suggested play is a non-serious, free activity that involves scenarios not present outside of a game or game world that is otherwise bound by limits on time, space and rules. There are two central propositions within Huizinga's definition. One is the notion of freedom: for as soon as play becomes structured or limited it can no longer be considered free. The second proposition highlights play as a voluntary activity constrained by limits. Thus, Huizinga conceptualises play as freedom that is nevertheless bounded. Although this definition of play predates videogames, Huizinga justifies its validity by suggesting that play should be "approached historically, not scientifically" (p. ix). The pursuit of a singular definition of play is something unlikely to be encountered. Rather it is necessary to examine play in multiple contexts so as to paint a holistic interpretation of such a complex phenomenon.

Caillois (1961), much like Huizinga, has become a frequently cited scholar, encapsulating play as being a free and optional activity that knowingly takes place in a "second reality or [a] free unreality" (p. 9-10) that is distinctly different from other activities. According to Caillois, play although potentially planned in advance, can be uncertain and unproductive whether or not it is governed by fixed rules. Caillois observes the activity and forms associated with play with respect to games, and classifies them into four categories: *agon*, *alea*, *mimicry*, and *ilinx*. Agon refers to the competitive elements of play and sport; alea are games of chance or luck; mimicry is the essence of imitation and role-play; and ilinx are games involving movement and motion. Caillois argues that play occurs on a continuum with games and defined rules (*ludus*) at one end, through to unstructured and spontaneous play (*paidia*) at the other. Paidia is a concept with many definitions and applications, and is described by Caillois as the "spontaneous manifestation of the play instinct", "common to diversion", "free improvisation" and "carefree gaiety" (p. 27-28). Frasca (2003) presents an evolved definition, suggesting that paidia is still play defined by rules, but is also a "physical or mental activity which has no immediate useful

objective, nor defined objective, and whose only reason to be is based in the pleasure experienced by the player".

Prior to Huizinga, psychologists Lehman and Witty (1927) examined the state of play scholarship at the end of the 19th century and beginning of the 20th century. Lehman & Witty capture the essence of defining the concept of play in so much that it "is the result of many variables" (p, 7). Sutton-Smith (1997) describes the diversity, variability, and ambiguity of play, positing through seven rhetorics that it is through understanding this ambiguity that a definition or understanding of play can begin to emerge.

The first, the rhetoric of *play as progress*, focuses on play as a means for development and learning in children and animals. Children learn through play, and often imitate adult behaviours. Thus, play provides social cues and boundaries, and is linked to cognitive growth. However, this sense of development or growth is not applicable to adults. The rhetoric of *play as fate*, is the second rhetoric, and applies to gambling and games of chance. This contrasts with modern theories of play that emphasise the voluntary nature of the activity. The rhetoric of *play as power*, the third rhetoric, applies to sport and physical games and contests. In this rhetoric, conflict is represented through play with those in control of play being perceived as the protagonists. The fourth is the rhetoric of *play as identity* most specifically refers to cultural identity and the use of play in spiritual, religious or other cultural festivals and celebrations. The rhetoric of *play as imaginary* encompasses the "imagination, flexibility, and creativity [of play that manifests as] playful improvisation" (p. 10), is the fifth rhetoric. The sixth is the rhetoric of *the self*, which describes play that pertains to solitary activities, but more accurately applies to the experience of the player. The final rhetoric is *play as the frivolous*. Sutton-Smith (1997) discusses an example of play frivolity through discussing the archetypical joker/trickster role in carnivals and fairs, describing them as "persons who enacted playful protest against the orders of the ordained world" (p. 10). This rhetoric describes play that is silly, non-directed, or pointless.

Play is often associated with expression; art, science, and communication, and society could not progress and evolve without the instinctual exploratory quality that accompanies play (Sutton-Smith, 1997). The ambiguous and elusive nature of the phenomenon of play has been explored by domains other than psychology, biology, and pedagogy; mathematics and science explore the nature of play as a factor in probability and chance, as well as strategy and planning as a means for engaging in simulated and real war scenarios.

Humans are not the only species capable of engaging in play (Bekoff & Byers, 1998; Fagen, 1981; Held & Špinka, 2011). Studies of play in animals have shown the sheer diversity of play, echoing the instinctual nature of the activity as a means for exploration, demonstration of strength, easing social tensions, and establishing social hierarchy (Groos, 1898). Play can be used as an indicator of the welfare of an animal (Fagen, 1981), with engagement in play indicating physical fitness and emotional health, safety, and suitable environmental conditions. Just as play is an instinctual nature in animals, it too is something human children gravitate towards as a means of learning and exploring the new world in which they now belong.

2.2 Children at play

Much of the psychology of play stems from observations of children. How a child plays today often defines the adult they grow up to become (Froebel, 1885; Groos, 1901).

Parten (1932) identifies six forms of social play amongst children. Depending on the circumstances of play, these six types of play may vary depending on prior social engagement, mood, and other socio-economic factors (Hughes, 2009). The first of these types of play is *unoccupied play*. This form of play occurs when a child is not engaged with any other child or object and appears to be uninvolved in any activity. Although focus is not apparent, the child may be engaged in the activity of play through imagination. *Onlooker behaviour* is the second form of play proposed by Parten, and is a passive form of play that involves children watching others at play with limited or no engagement. When a child plays alone without interacting with

other children they are engaging in *solitary play*. This play, where the child focusses on its own activity, is the third type of play. *Parallel play*, as the fourth type of play, describes when a child playing alone may begin to mimic the behaviour of other children even though communication may be limited. The fifth type of play, *associative play*, occurs when the child begins to engage with other children, however, play of this type may continue to be solitary, yet be influenced by the activities and presence of other children. The final type of play identified by Parten occurs when a child becomes immersed in the activities of other children, sharing in play and engaging in communication. This is referred to as *cooperative play*.

Echoing the work of Parten, Piaget (1951) acknowledges that play is not one behaviour, but rather comprises of six criteria that differentiate play from non-ludic activities. The first of these criteria is the duality of *assimilation and accommodation*, in which there is a relationship between the physical objects in the child's activity and the suitability of the child's activity with respect to the integration of motor skills to the objects available in play. *Spontaneity* is the second criterion, and one where a desired trait in play is not classified as a serious activity. Recent literature on the topic of serious games demonstrates players could engage in play, even though it may have a more serious purpose (Egenfeldt-Nielson, 2005). The third criterion requires the by-product of play to elicit an *emotive* response. In play, this often takes the form of pleasure. As mentioned previously, more serious activities tend to focus on the product or result and not the emotion. *Unstructured play*, as the fourth criterion is regarded by Piaget as an optimum form of play where play features no direct goals or outcomes but is rather left to the whim of the player. Thus, players are free to initiate and participate in play at will. In *non-confrontational* play, the fifth criterion, it is suggested that in the event of conflict players are able to arrive at solutions to problems or suppress them and return to play; the act of play taking precedence over the conflict itself. The final criterion proposed by Piaget suggests that *incentives* are the starting point of play, where motivating factors extrinsic to the current activity (serious or non-serious) are included in addition to intrinsic elements of the activity.

Vygotsky (1978) argues imaginary situations and rules contribute to cognitive and social development in children. Irrespective of the form of play, children are able to separate real meaning from the objects present. However, the situations are inspired by real circumstances with play becoming a form of “memory in action” rather than “a novel imaginary situation” (p. 103). Steiner & Trostli (1998) argued that creativity could be stimulated through imaginative play, as it is through play that children can learn and further develop all of their skills (Kant, 1960; Partridge & Hall, 1912).

The *Surplus Energy Model* (Schiller, 1875; in Lehman & Witty, 1927), suggests play arises as an outlet for excessive energy. Schiller considers art just one of these outlets and describes it as a “higher form of play” (Lehman & Witty, 1927, p. 9) which also functions as a factor for growth and affords the types of activities that an organism may engage (Lehman & Witty, 1927). Spencer (1875) disregarded the earlier work of Schiller (1872), discussing that as a theory, the *surplus energy model* should be dismissed as it fails to identify many aspects of play (Burghardt, 2005; Groos, 1898).

Play is a fundamental activity featured throughout much of the human experience; from learning and discovery to entertainment. Play is not dependent upon a game or rules being present. However, games cannot occur without some degree of play (Salen & Zimmerman, 2004).

2.3 Games

Salen and Zimmerman (2004) define games as a “system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome” (p. 80). Similarly, Juul defines games as a “rule based system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels emotionally attached to the outcome, and the consequences of the activity are negotiable” (2005; p. 6-7).

Play is an activity engaged in by a player. The game is a system for administering and governing rules, actions and forms of play, as players achieve goals and objectives (Flanagan, 2009; Juul, 2011; Newman, 2004; Salen & Zimmerman, 2004).

2.3.1 Rules and goals

A game may also be defined as an interactive activity in which one or more participants follow a series of prescribed rules in a voluntary interaction that results in a definable, quantifiable outcome (Caillois, 1961; Mayra, 2008; Zimmerman, 2004). Rules are an integral component, and define the boundaries and structure of the game. Some rules may be disclosed to players whilst others may be kept hidden. Ultimately, rules act as a tool for determining different outcomes of the game, based on the actions and choices of the player (Kelley, 1988; Suits, 1978).

Goals arise from the challenge that instigated the play activity. It might be a challenge set down by another player, a challenge posed by a puzzle or a player set goal. The goal gives the game purpose and provides meaning and hence motivation to the player. It is by the goal that the player receives feedback on their progress toward completion. The goal is the ultimate measure of the player's success. Goals may be intrinsically or extrinsically assigned (Bartle, 1996; Huizinga, 1949; Piaget, 1951; Spencer, 1873; Vygotsky, 1978) and are often dictated by the genre of the game. In a linear narrative game where the player is led along from beginning to end, goals are presented that provide challenges and problems to solve before the game can continue. The challenges require creativity to solve, mark milestones in the narrative and utilise the player's interactive abilities to resolve.

2.3.2 Interactivity

Interactivity is defined across a variety of fields, however when considered from the perspective of videogames, interactivity is the varied, structure or non-structured response or result from a player's choice, action and input, "[creating] an environment that is both procedural and participatory" (Murray, 1997). This type of interactivity is what defines computer games, and becomes a key differentiator

between computer games and traditional (non-digital) games (Goffman, 1961; Rafaeli, 1988; Rouse, 2004; Svanaes, 2000). Interactivity can be expressed on a continuum, moving from non-interactive to reactive and finally to interactive (Rafaeli, 1988).

2.3.3 Videogames

All videogames fit within Caillois' continuum, with many featuring a blend of rules and flexibility. Gameplay then, is the act of engaging in play when it is constrained by rules, levels of interactions and choices available to the player (Calleja, 2007; Mallaby, 2007; Rouse, 2004).

Within the literature, the presentation of the term *videogame* is frequently also presented as *video game*. As suggested by Wolf (2007), the term video game denotes a game which utilises video elements, just as a board game or card game would describe a game played with boards or handheld cards, respectively. However, videogames are a significantly different medium, and are far more complex than just games that use video components. Videogames utilise computational processing to receive input from one or more players, manage rules and game objects and objectives, and render a combination of visuals, sounds and other elements of media to an output device. Although the definitions of videogame and video game are logically the same, there exists much debate (Bruno, 2010) as to the value and justifications of each term. For the purposes of this dissertation the researcher has opted to use the term videogame, and considers this to include the concepts associated with video games, computer games, digital games, console games and other applicable forms of interactive media.

A videogame is "before anything else, [a game]", with the addition of computed variables, digital graphics and sounds (Frasca, 2004; King & Krzywinska, 2006; Newman, 2004). However, video games present an opportunity to explore far more detailed and immersive narrative and gameplay experiences. The most iconic difference between a video game, and a traditional, non-digital game, lies in the addition of automation and complexity to the game rules that can be applied,

resulting in richer game worlds (Egenfeldt-Nielsen, 2005; Juul, 2004; Smith & Tosca, 2008). Tavinor (2009) provides a classification for defining the nature of a videogame, suggesting that it is an “artefact in a visual digital medium” (p. 26) which has been designed for the purposes of entertainment through player engagement with rules, objectives and/or interactive narrative.

Gameplay then, is the act of engaging in play of games and is defined by the rules of the game and level of interactions and choices available to the player (Rouse, 2011). Tavinor (2009) describes gameplay as being “comprised of the interactive challenges presented by games” (p. 5) that the player then engages in, attributed by a successful or unsuccessful outcome.

2.3.4 Player agency

Player agency reflects an understanding that the player has the ability to affect the outcome and meaning of the play to which they are engaged (King & Krzywinska, 2006). It is the ability to act and exert power in a transformative capacity where the player interacts with videogame worlds, changing the state of its environment as they intend (Giddens, 1984). Calleja (2008) suggests agency in computer games is multidimensional, categorising it in six broad categories: tactical, affective, narrative, spatial, performative, and shared. Each of these specifies how the player can become *involved* in the game world and how it affects them. Agency within a game occurs on a continuum beginning with little interactive capability to complete freedom. Games that run *on rails* and require little interaction from the player can still engage as long as the player is aware of the limitations of the game play. How freedom within the game world affects immersion is beyond the scope of this thesis. With respect to the unified theory of play, agency in whatever form is a critical element and without human involvement, there is no play.

Players engage with videogames in many different ways. While some players prefer to approach play with tactical strategies to complete the main objective of the game as efficiently as possible, others tend to focus on other aspects of the game, such as collecting every possible item, or simply focussing on the narrative as presented

by the game. These are just some of the example player types that have emerged through the study of play in videogames.

2.4 Player types

More recently, play has been explored as it occurs in videogames and virtual worlds. Literature on play in videogames and virtual worlds describes how players engage with videogames (Bartle, 1996), and with each other (Aarseth, 2003; Bartle, 2004). Brown and Vaughan (2009) suggest that improvisational play results in the discovery of new behaviours, movements and insight, and present a framework of play styles for understanding how preferred play styles can impact the types of activities players prefer to engage in during play.

Bartle (1996) first presented four player types that describe how players engage with games: *socialisers*, *killers*, *explorers*, and *achievers*. Socialisers are players who play for the purposes of engaging with other players, above all else. Killers seek challenge and play through contest with other players. Explorers are interested in the construction and design of the virtual world, and find enjoyment in traversing the world. Achievers are players who seek to accomplish set missions and defined goals of the game, without the need for interaction with other players. Although this concept originates with respect to multi-user dungeons (MUDs), these player types are applicable across a variety of games (Aarseth, 2003). Bartle revised the original model to account for sub-categories of the aforementioned player types, introducing an explicit/implicit dimension concerned with how players engage and interact with other players (Bartle, 2004). The new player type classification model consists of: *politicians*, *networkers*, *friends*, *griefers*, *planners*, *scientists*, *hackers* and *opportunists*. Politicians are more senior players who have influence over more junior players. Networkers engage with all players, much like the original socialisers. Friends interact with players with whom they are more familiar. Griefers share some common traits with socialisers and killers, in that they engage in socially unacceptable behaviour to become elitist. Planners are achievers who use strategy to attain goals and objectives. Scientists explore the world methodically. Hackers are experienced players who thoroughly understand all aspects of the virtual world,

and progress through it without direction or assistance. Opportunists explore the virtual world, and achieve goals when and as they see fit.

Brown and Vaughan (2009) suggest improvisational play results in the discovery of new behaviours, movements and insight. Their *Personalities of Play Model* presents a framework of eight styles of play that provide an overview of the types of players, and the types of activities they prefer to engage in during play. These include, the *joker* as a player who enjoys nonsensical play, humour and does not take play as a serious activity; the *kinesthetic* encompasses players who enjoy movement and motion in play; the *explorer* classifies players who enjoy searching and exploring a world or map, or engaging in new theories and thoughts; the *competitor* seeks challenge between players (and NPCs) and enjoys the rivalry that results; the *director* prefers to choreograph schemes, tactics and events in play, rather than engaging in the activity itself; the *collector* prefers play that involves gathering items and objects, and obtaining trophies and rewards; the *artist* favours creativity, design and art in play; and, the *storyteller* prefers writing and crafting original stories or building on the stories and lore of existing worlds.

Although these player types present diverse modes of play, they do not specify or consider how videogame freeplaying-players interact with the game. The design of the game where choice and flexibility is encouraged can be explained through emergence theory (Sweetser, 2008).

2.5 Emergence

Emergence within any system is comprised of internal and external factors, constant or changing, which produce persistent and controlled patterns and behaviours (Fromm, 2005). Heylighen (1991) describes emergence as “the transition after variation from a given system to a different, selectively retained system, characterized by a stable distinction, and to be represented by a new (partially) closed model” (p. 89). In essence, the phenomenon of emergence suggests that more complex, and non-planned interactions are the result of the combination of smaller components and their individual behaviours (Rabin, 2004; Sweetser, 2008).

Scholarship on emergent gameplay examines behaviour with respect to the game as it is designed and planned, versus how the player may play the game. As first identified by Caillois (1961), there exist two types of games: *games of progression* and *games of emergence* (Caillois, 1961; Juul, 2011; Sweetser, 2008). Games of progression are often ludic in nature often providing players with a series of structured, pre-determined challenges. Games of emergence are less structured. They allow players to explore a variety of paths to achieve the goals of the game. Just as ludus and paidia are a continuum, so are games of progression and emergence.

Juul (2011) identifies four types of play within this continuum. The most distinct of these play types discusses *pure progression games*, which are ludic and linear, while *pure emergent games* are loosely structured and paidic. Between these two points exist *progression games with emergent components* that allow players to explore a variety of different solutions to problems presented in game, and *emergent games with progression components* that allow players to choose various paths and outcomes for the game while completing a subset of linear quests and missions.

Sweetser (2008) presents three levels of emergent gameplay. The first level proposes that the actions taken by a player have an impact on the local elements of the game world. The second level considers player manipulation of basic elements of the game to create diverse strategies for solving the problems presented in the game. The third level describes the decisions and actions of the player having dramatic and widespread influence over the entire game. Harvey Smith (2001), Director of *Deus Ex 2* (Eidos Interactive, 2001), discusses the implementation and development of emergent game systems, and identifies two forms of emergence: *desirable* and *undesirable emergence*. Desirable emergence occurs when diverse gameplay occurs as the resulting combination of multiple game elements and rules. Undesirable emergence occurs when players exploit rules for the purpose of breaking the game or accelerating player progress beyond that determined by the developer. Both forms of emergence may not be evident until after the release of a game (Dormans, 2014).

The term *intentional emergence* is used to describe the same forms of emergent gameplay as desirable emergence. A counter term, *unintentional emergence*, has been defined in formal analysis of emergence theory (Fromm, 2005) and has a colloquial application in game studies. However, an empirical exploration of unintentional emergent gameplay has not been presented in ludology literature to date. Unintentional emergent gameplay describes play that is unforeseen to videogame developers, where players capitalise on glitches and modify the original objectives of the game.

Unintentional emergent gameplay is however an inaccurate term that considers play as a by-product of the game. Play is essential to all games and the player never engages in play that is unintentional. Therefore, to say these forms of emergence are unintentional may be true from the developer's perspective, but it fails to qualify the activities of the key participants in games, the players. As a term, unintentional emergent gameplay undermines a player's strategic exploitation of the affordances of the game to create new play within the confines of existing games; it fails to respect that freeplay is a form of intentional play in videogames.

2.6 Engagement

One of the most significant factors of gameplay is player engagement, as it is the will of the player to invest time and energy into the game that then affords the player experience (Schoenau-Fog, 2011). It is through players engaging with a game that they are able to become immersed in the game, and continue playing the game (Brown and Cairns, 2004). The concept of fun is the product of an enjoyable and engaging experience (Goffman, 1961). Fun, as experienced by players of video games, heralds from the "enjoyment of problem solving" (Juul, 2005) where fun can also be the result of attempting to "understand the pattern of a game" (Koster, 2004). Fun and enjoyment are "the reason for players to begin, sustain, and repeat" play in videogames (Klimmt, 2003; p. 247). *Autotelic* experiences refer to those activities that are engaged in for their own sake, where participants disregard consequences and rewards, and is in itself its own task (Schmid, 2011). Autotelic

goals and challenges focus on the accomplishment of the goal itself, rather than potential rewards or consequences associated with it.

Videogame engagement can be classified into four components: objectives, activities, accomplishments and affects (Schoenau-Fog, 2011). *Objectives* may be extrinsically defined by the game, or be a self-directed objective intrinsically set by the player. *Activities* describe the actions players willingly engage in for the purposes of attaining the set objectives. These activities are comprised of any possible game mechanic, and include: solving problems, experimentation, exploration, creation and destruction, and socialisation. Once an objective has been met it becomes an *accomplishment*. Accomplishments can come in the form of achievements awarded by the game, but also acknowledged and felt by the player for having completed an objective. Similarly, players can also feel a sense of accomplishment through progressing through the game and improving equipment, character level, or equivalent. Through completing levels and quests and other components of the game, players can also feel a sense of accomplishment. The final component of engagement is the emotional *affect* the other components have on the player. A positive affect encompasses any emotion that keeps the player engaged in the game through satisfying gameplay and investment in the game and its narrative. A negative affect would describe the emotions associated with players where they become bored with the game, and thus disengage with play. Absorption is the sense of immersion a player feels whilst playing and becoming invested in a game, and is explored in the following section as the notion of flow theory. A players' desire to prolong or continue their gameplay is influenced by the affect the game has on the player, "[stimulating] players to make up new, self-defined intrinsic objectives" (Schoenau-Fog, 2011; p. 6).

Csikzentmihalyi (1990) identified the various mental states of involvement and engagement a participant experiences whilst engaging with an activity. Flow is the complete absorption and engagement with an activity that fosters feelings of confidence, enjoyment and satisfaction (Debold, 2002). Flow is the state of complete involvement and satisfaction from engaging in an activity that is physically or cognitively stimulating. Flow is comprised of the following seven factors, although

not all are required for an individual to be engaged in the state of flow (Csikzentmihalyi, 1990).

The first and primary indicator of flow is when an individual is engaged in an activity that requires a high level of skill and is sufficiently challenging. These activities can manifest in many forms, however a key principle associated with the activity is a sense of achievement. The individual needs to feel there is a possibility in completing the activity successfully. Csikzentmihalyi observes that competition is a valid activity for engaging in flow providing the primary intention of the activity is to "[perform] as well as possible [rather than beating the opponent.] Competition is enjoyable only when it is a means to perfect one's skills; when it becomes an end in itself, it ceases to be fun" (p. 46).

The second factor suggests that when engaged in flow the individual becomes completely absorbed to the point where the activity becomes the centre of their focus, and becomes near automatic. Whether physical or mental, the activity itself requires immense effort on the part of the participant. It is not uncommon for follow-on activities to flow on spontaneously.

Clear goals and immediate feedback form the third factor of flow. These goals may be outlined by the activity or intrinsically defined by the individual, and can be determined at any point throughout an activity. Similarly, the forms that feedback may take vary depending on the activity and goals that have been defined. Individuals will value different forms of feedback, based on unique personal preferences.

The fourth factor describes a seemingly amnesiac effect of flow, where individuals deeply immersed in an activity become so engrossed in the activity so as to direct all concentration to the task before them. A by-product of this is a momentary disregard for other events and thoughts external to the current activity. Concentration combined with goals and feedback prolong exposure and engagement in flow.

The fifth factor of flow discusses the concept of control with respect to having governance over an activity and simultaneously accepting and embracing the possibility of losing control. Csikzentmihalyi highlights that control is “the freedom to determine the content of consciousness” (p. 62).

Further in the sixth factor of flow, Csikzentmihalyi observes the loss of self-consciousness or self-awareness amongst individuals as they become immersed in an activity. This is not a loss of consciousness, but a shift in focus away from the individual and towards the activity they have become engaged in.

The final factor of flow explores the transformation and perception of time passing more quickly whilst fully immersed in an activity. This lack of perception is consistent with other factors discussed in flow theory. Time then becomes another extrinsic concept or event that is disregarded when engaged in flow, much like the sense of self.

Drawing from his discipline of psychology, Csikszentmihalyi proposed the concept of flow as “the optimal mental state where a person is completely occupied with a task that matches the person’s skills” (p. 49) without being overly difficult or simplified. In education literature the similar phenomenon of scaffolding exists in which educators control the difficulty level of information and skills being provided to students in order to keep them engaged (Vygotsky, Hanfmann, & Vakar, 2012).

Within the flow model proposed by Csikszentmihalyi, flow is seen as the optimum pairing of skill and challenge. Where flow is not achieved, other emotions and mental states are entered into depending on the balance of skill and challenge within the activities. The first of these states is *apathy*, and is the product of a challenge that is perceived as far too simple and requires minimal skill on the part of the participant engaged in the activity. This combination results in a distinct lack of interest in the activity. The second state is *boredom*, where although an individual may require a moderate level of skill to complete an activity, there still exists little if any challenge. As such, those individuals grow tired of the primary activity quickly. When an activity offers little to no challenge but demands a high degree of skill,

participants can feel *relaxed* whilst engaged in the activity. Individuals who are relaxed feel reassured that they are a position of capability, but ultimately will evolve into a sense of boredom over time. Immediately opposite boredom is the emotional state of *worry*, the fourth state outlined in flow theory. An individual may feel worry when engaged in an activity that offers a moderate level of challenge, but lacks the required skills to demonstrate competence or complete the activity. The fifth state is *anxiety*, and is the contrary emotion to relaxation. A participant who is required to complete a complex challenge but lacks the required skills, is likely to feel an evolved sense of worry whilst engaged in the activity. The following three states are the more desirable emotions associated with engaging in an activity. The sixth state is entered when a participant has a high degree of skill and is engaged in an activity that is moderately challenging. This combination results in a participant feeling in *control* of the situation, with a likely positive outcome. The seventh state, termed *arousal*, requires a participant to have moderate skill for engaging in an activity that is highly challenging. When the challenge is sufficiently complex and the individual has a non-guaranteed opportunity to succeed in an activity, they may feel excited by the prospect. The final and optimal state for engaging in any activity, is the state of *flow*. Where a participant has been presented with a complex challenge but already has a high degree of skill in the area, they feel empowered by the situation and become fully immersed in the activity. The aforementioned states can be seen in Figure 1, showing their relationship to skill and challenge.

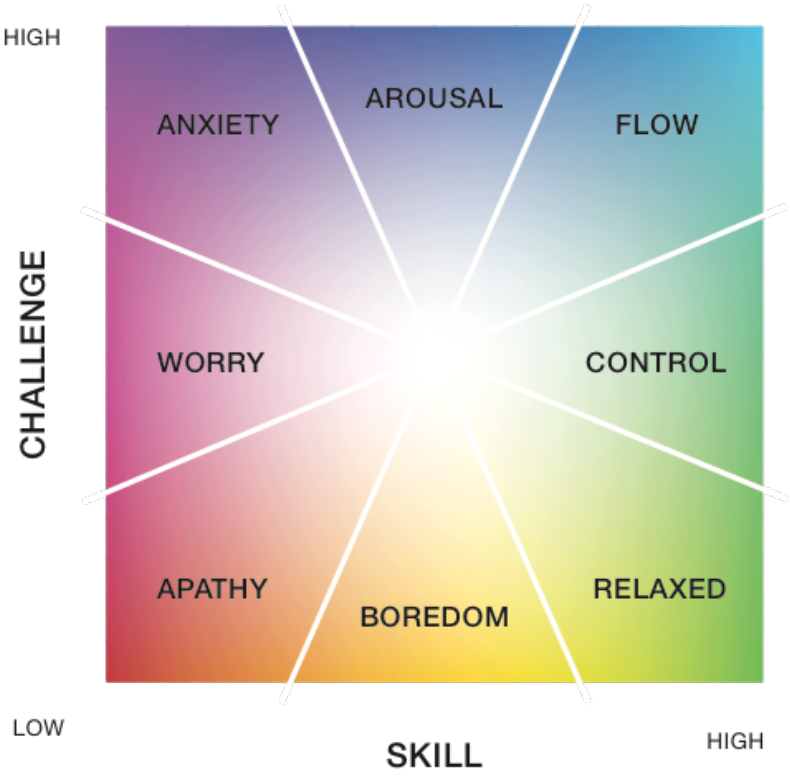

Figure 1. Flow Theory: The relationship of challenge and skill to the various emotional states associated with engagement in an activity. (Adapted from Csikzentmihalyi, 1990).

Flow in videogames and play (Sweetser, Johnson & Wyeth, 2012; Sweetser & Wyeth, 2005) has been described as featuring eight categories similar to those as proposed by Csikzentmihalyi: concentration, challenge, skills, control, clear goals, feedback, immersion, and social interaction. Chen (2008) highlights a process for incorporating flow in videogames through dynamic adjustments which respond to individual player needs and experiences. Chen continues to discuss the fluctuation of flow throughout gameplay. Players will drift between many (if not all) of the above states on the path to game completion, ultimately carving their own zone of flow that evolves as their gameplay changes. It is through the players' journey that they participate in both designed gameplay, and player-defined freeplay. It is also important to note that the flow zone of each player is dependent upon their experience level and skills, and individual responses to challenges. Player choices in emergent games may also have an impact on flow in videogames.

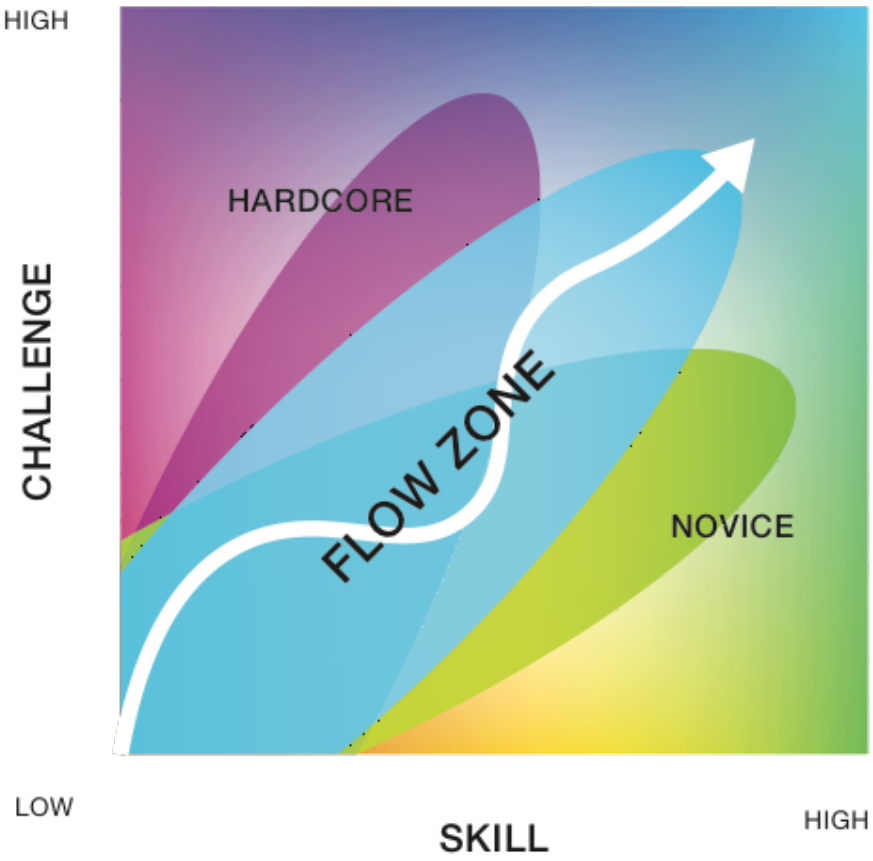

Figure 2. Flow theory: Hardcore and novice players present with varied states of flow. (Adapted from Chen, 2008).

Players demonstrate a higher degree of control over their gameplay, through maintaining the state of flow (Chen, 2008) and in the pursuit of freeplay. In order to accomplish this, players must exhibit some form of creativity in order to explore the possibilities of freeplay (Nachmanovitch, 1990) as afforded by the videogame.

2.7 Creativity

The domain of creativity reflects a multitude of definitions and conceptual understandings that mirrors the state of play; lacking a singular, holistic definition for the term (Parkhurst, 1999). Creativity can however, be summarised as a process in which new ideas are generated, or existing concepts are combined in new ways (Guilford, 1950; Koestler, 1964). At the core of many creativity theories are the concepts of divergent and convergent thinking (Guildford, 1950; Sterberg, 2006).

Convergent thinking is a systematic and logical form of creativity that endeavours to use existing known information and rules to conclude a singular solution in response to a problem or scenario (Cropley, 2006; Guilford, 1957). In contrast, divergent thinking produces and explores multiple, original solutions in response to a problem or scenario (Gilhooly, Fioratou, Anthony & Wynn, 2007; Plucker & Renzulli, 1999).

The following theories reflect aspects of creativity, that each in their own right also demonstrate the playfulness associated with the act. Creativity literature is built on the premise that play produces meaning.

Koestler (1964) presents creativity as the merging of two often unrelated concepts to form a new concept through the process of bisociation. Further, Koestler argues that creative thought can be understood through three universal factors:

- *Emphasis*: the selection, simplification and exaggeration of stimuli as a means for developing original thinking (Trenos, 2014).
- *Originality*: the *surprise effect* that reflects the spontaneity of new thought.
- *Economy*: the development of sophisticated concepts through interpolation, extrapolation and ultimately transform of information.

Dietrich (2004) examines creativity with respect to the various functions of the brain, and the forms of creativity that emerge as a result. Within the model, it is proposed that creativity can be classified dependent on the type of knowledge it produces (cognitive or emotional) and how that knowledge is processed (spontaneous or deliberate). This matrix produces four types of creativity:

- *Cognitive/deliberate* forms of creativity require a high degree of knowledge in a field, as well as extended periods of time for ideas to flourish. This represents a systematic process for generating novel concepts, and forming connections between two or more often disparate concepts. This form of creativity is closely aligned to Koestler's concept of bisociation.
- *Cognitive/spontaneous* forms of creativity require some knowledge in a given field, yet new ideas and concepts emerge when not focussed on

solving the problem. These creative thoughts are unexpected in their development and evolution.

- *Emotional/deliberate* forms of creativity do not explicitly require knowledge of a field, but rather are driven by emotions and personal experience.
- *Emotional/spontaneous* creativity is most commonly seen in artistic and musical expression and are often likened to an epiphany as motivated by an emotional trigger.

Players begin to experiment and explore the possibilities presented by the game through creativity. This act of experimentation is a key focus throughout numerous definition of play (Piaget, 1951; Parten, 1933). It's also emphasised by Nachmanovitch (2001), more broadly applied to a diverse range of domains of creative experimentation. Differing from the core objectives designed by the game, referred to as unintentional (Fromm, 2005) or undesirable (Smith, 2001) emergence, shifts the players' intentions from the game. Although such play has an emergent quality, as has been discussed throughout, all seven facets of play exhibit a quality of rule abandonment. This then, shifts players' intentions from gameplay to freeplay. Freeplay is a prime example of creative bisociation (Koestler, 1964), where players can combine mechanics and game artefacts with custom rules to form novel forms of play.

2.8 Freeplay

Freeplay was first scholarly associated with the behaviour of children and defined as play that is spontaneous, voluntary and free from explicit rules and limitations (Huizinga, 1949; Parten, 1933; Piaget, 1951; Vygotsky, 1978). The term is akin to the Sanskrit word *lila*, which Nachmanovitch (1990) broadly defined as a richer form of play, a cross-discipline form of creative expression and spontaneous improvisation that applies to art, music, literature, and games. Freeplay has also been described as the improvisation of rules (Vidart, 1995; in Frasca, 2007), and can be considered as a form of open-ended play (Tiemstra et al., 2011). Parten's unoccupied play, as described above, is also relevant in the context of freeplay.

Our culture tends to view play as a frivolous activity that in the eyes of many constitutes wasting time or expelling excess energy (Schiller, 1875), however play and freeplay have consistently been shown to help children learn and grow (Brown et al, 2000). Theories associated with freeplay in children link engagement in play to intellect (Kuczaj, 1985; Piaget, 1951; Vygotsky, 1978), problem solving (Pepler & Ross, 1981), lateral thinking (Russ & Kaugers, 2001), and social development (Carson, Burks, & Parke, 1993). Many of these scholars identify creativity and liberty as the most critical aspects of spontaneous play and freeplay (Brown et al, 2000; Csikszentmihalyi, 1975; Hughes, 2003). When placed in circumstances of pretend or make-believe play that encouraged freeplay, Dansky (1980) observed that children performed better at tasks that involved divergent thinking, provided there was a high degree of spontaneity in play (Hughes, 2003).

Rydenhag (2003), in discussing how computer embedded toys could support freeplay, questions the role of videogames in a brief diversion, stating that although the medium features a "lack of physical activity … computer games do not leave much to imagination" (p. 1). The argument made here suggests that videogames "visualise all events [and thus] restrict the user by the options available" (p. 6). However, this argument fails to consider the power of the player, disregarding that the player has some degree of creativity and the capacity to voluntarily engage in any activity they deem appropriate. Contrary to what is presented here, videogames are systems comprised of fundamental mechanics that players can administer at will when considered independent to the game and narrative. The purpose of this research is to demonstrate that videogames are indeed not only a suitable platform for freeplay, but one rife with examples.

Mandryk's (2001) definition of freeplay is heavily reliant on the characteristics of many generic definitions of play, including those discussed previously in this chapter (Brown, et al, 2000; Caillois, 1961; Huizinga, 1949; Lehman & Witty, 1927; Sutton-Smith, 1997; Vygotsky, 1974). However, through an examination of these characteristics, it is possible to further develop a clearer understanding of freeplay in a more generic context. Freeplay, much like all play is *voluntary* in nature, in that participants involved in the activity "can enter and leave [play] at will" (Mandryk,

2001; p. 2). *Spontaneity* within freeplay is a luxury afforded by the possibility space of play, which is void of strict rules or structure. All play features a *pretend element* that ensures play is "different from everyday experience[s]" (p. 2). Freeplay and play that are *engaging* provide those involved in the activity with a means of disconnecting from other aspects of the environment and becoming engrossed in the activity at play. Lastly, play should be "*enjoyable* [to] the players" (Mandryk, 2001; p. 2).

Derrida (1966), a French philosopher, is often referenced as a key source for freeplay. However, the original text refers to the French term *jeu*, that more accurately refers to the generic terms of play and game in English. In one of the earlier translations (Macksey & Donato, 1970), *jeu* is mistranslated as freeplay (Golumbia, 2009). To fully explore the literary work of Derrida is beyond the scope of this dissertation, however the play or freeplay referred to by Derrida is used in the context of describing structure and presence, likening deconstruction and the *disruption of presence* to play (Derrida, 1993; Golumbia, 2009; Sutton-Smith, 1997).

Just as it is important to draw attention to the etymology of the terms video game and videogame, it is worthwhile acknowledging the distinction between freeplay, free play, and free-to-play. For the purposes of this dissertation, freeplay and free play refer to the same concept. This, however, is not the same idea of free-to-play games which suggest that no monetary value be attached to the primary gameplay experience.

2.8.1 Freeplay in videogames

Scholarship of emergent gameplay focuses on players manipulating videogames to vary the outcomes, and player exploitation of aspects of the game for personal advantages in working to designed gameplay objectives. Literature on emergent gameplay emphasises the diverse paths players take to accomplish the predetermined goals of the videogame. Scholarship on freeplay focuses on the application and effect free and spontaneous play have on childhood development and learning. This thesis will examine freeplay from the perspective of players, while

also identifying characteristics of the videogame medium that players are exploiting to engage in freeplay.

Freeplay is described as the "toying with or exploring of a fictional system" (Tavinor, 2009: p. 85) where there are no clearly defined rules or objectives specified by the game, but rather is guided by the goals, rules and objectives of the player (Tavinor, 2009). Players manipulate any number of aspects of the game world for their own intrinsic purposes, creating their own new play. The concepts of freeplay and *paidia* are superficially linked in game studies literature (Bateman, 2005; Juul, 2005; Newman, 2004). However, the act of freeplay is far more complex, transcending that of simply being a means of temporary entertainment.

Ludus and *paidia* provide a continuum which relates to the degree of structure within a game. The key point here is that paidia is a designed feature of the game. The designers have implemented mechanics for the purpose of keeping the game open. This act, a designer-centred act, is not freeplay. Freeplay can only be defined by a player or group of players, and must stand distinct from existing rules and systems implemented by the designers. The *Grand Theft Auto* franchise (Rockstar Games, 1997-) is described by Bateman as a "playground world that … supports … freeplay" (2005; p. 69), with each successive game in the series expanding on the sandbox nature of the game.

> It is the player and not the designer who decides how to use a toy, a game, or a videogame. The designer might suggest a set of rule, but the player always has the final decision. (Frasca, 2001; p. 14)

For the player to win under normal gameplay conditions, they must abide by the rules as presented by the videogame. However, in the instance of freeplay the definition of the winning state or conditions is one that is left to the interpretation of the player.

Tavinor (2009) describes freeplay as "gameplay lacking authorized or defined objectives, where the player may instead explore or toy with the possibilities of a

game system or fictional world" (p. 201). However, freeplay as a phenomenon is far more complex than this. It is not mere *toying* with the game system or fictional world, but rather the extension of play through player defined goals and objectives. Freeplay encompasses examples in which players toy around with elements of the game, but also includes the development of new gameplay inside pre-defined videogames. Freeplay demonstrates that a once fundamental construct of the definition of a game, that a game must have structured rules or actions, is not always a requirement for a player to enjoy the game, game world, or engage in play. Aarseth (2003) has argued that without those rules, "we would have freeplay or other forms of interaction, but not gameplay" (p. 2). In Aarseth's own work, he acknowledges that there should be a "balance between freeplay, analytical play, and nonplay" (p. 7).

> We can see this type of play in videogames such as *SimCity* and Microsoft Flight Simulator, where players engage with a fictional world or system for the purposes of entertaining themselves with its details and possibilities. A source of great fun in *Grand Theft Auto* in particular is exploring and interacting with its detailed fictional environments, perhaps even ignoring the objective-driven activities or missions that are represented within that world, or even setting the terms of your own missions: How long can I avoid the cops if I enter this restricted area? (Tavinor, 2009; p. 87)

Tavinor in the context of defining gameplay, briefly discusses freeplay and examples of freeplay in videogames. *SimCity* (Electronic Arts, 1989 -) and *Flight Simulator X* (Microsoft Studios, 2006) are essentially sandbox games, providing players with a possibility space of play[1] where players can experiment. Similarly, *Grand Theft Auto* is an open world game that encourages exploration of the environment. However, in defining the boundaries of freeplay it is necessary to consider whether the act of exploring a game world is part of the game. A prime example of freeplay is provided at the end of this quote, where the player has defined rules and goals of their own,

[1] The possibility space of play is a concept discussed by Salen & Zimmerman (2004), and describes all actions and outcomes made possible by a set of rules.

which are secondary to the game. A point of differentiation for deciding if an activity within a videogame is considered freeplay, is in whether the game rewards the player for “avoiding the cops”. If the videogame does reward the player in any way for an activity such as that, for example via an achievement, then the activity cannot be considered freeplay.

> Not all videogames allow freeplay in any great measure. As noted, attempting to toy with a game like Tetris is unlikely to be very successful because the formal system of that game exhausts the interactive potential of its affordances. But some games, and increasingly it seems with the rise of the sandbox genre, allow players to diverge from the encoded games and play by their own rules. (Tavinor, 2009; p. 108).

A crucial aspect of freeplay, that this dissertation explores, is that players are still able to append their own rules and challenges to videogames. Although *Tetris* may seem ludic and limited, players are capable of modifying the rules and conditions of the game. For example, the player may wish to see how long they can go stacking blocks of the same shape or colour on top of other blocks that are the same. Similarly, the player could also implement limitations on the number of block rotations. Alternatively, the *Tetris* game may be to attempt to create a particular pattern using only the blocks generated by the game. The argument can be made here that although sandbox games allow players to freeplay, this genre is by no means the most prominent. Freeplay occurs throughout any genre, with players defining their own rules and objectives.

Throughout the literature review several key characteristics of freeplay were identified, each appearing a facet of the phenomenon throughout multiple sources. These characteristics will be used in Chapter 4 and 5 to frame the findings from the study herein. The identified characteristics will now be elucidated.

2.9 Characteristics of Freeplay

Throughout the definitions of play and the exploration of freeplay literature presented herein, the following key characteristics have been identified as being relevant for this study: *creativity*, *exploration*, *immersion*, *social*, *spontaneous*, *structure*, and *discretion*. Each of these characteristics reflect a central component of freeplay and play, and as freeplay is a type of play these premises utilise literature from throughout the domain and will be used as the basis of the framework method analysis applied in Chapters 3 and 4. Some of these characteristics are inspired by the physiognomies of freeplay discussed by Mandryk (2001), whilst other leitmotifs were drawn from throughout the literature presented in this chapter.

Creativity comes in the form of expression, art and imagination (Brown & Vaughan 2009; Dietrich, 2004; Guilford, 1950; Koestler, 1964; Lehman & Witty, 1927; Nachmanovitch, 1990; Raphael-Leff, 2009; Shepard, 2012; Vygotsky, 1978;). Creativity encourages players to look for new ways to solve problems, with creativity stimulated through play (Steiner & Trostli, 1998). Videogames at their core present players with problems needing to be solved. The degree of agency provides the player with the tools to continue to play through the creative use of the tools presented. Creativity in play also produces new player experience and allows for full exploration of the game environment. As freeplay is a player-driven activity, some degree of creativity allows players to develop novel ideas for play, but also test the boundaries of the videogame. Creativity in play and freeplay draws influence from the rhetoric of *play as imaginary* (Sutton-Smith, 1997), the *hackers* and *opportunists* described by Bartle (2004), and the play personalities of the *artist*, *director* and *storyteller* as identified by Brown and Vaughan (2009).

Exploration through play is a core mechanic featured throughout many videogames (Pisula, 2008; Tavinor, 2009; Tuminaro, & Redish, 2007) as players explore the world the possibilities of the game space begin to reveal to the player. Of the literature previously examined in this chapter, it is clear that exploratory play is a fundamental principle and focal activity for many players. Bartle (1996) and Brown and Vaughan (2009) consider the role of the *explorer* in their respective models of player types.

Similarly, the *scientist* demonstrates behaviours akin to the exploration of the videogame world and its possibilities (Bartle, 2004).

Play is immersive; it is through this *immersion* that players engage with the videogame world and remain in it for extended periods of time, or wish to return at a later stage. One of the most referenced theories of immersion and engagement is that of flow (refer to Section 2.6). Ultimately, play aims to elicit an emotional response from the player (Piaget, 1951), with engagement and fun being suitable products of play (Goffman, 1961; Juul, 2005). Immersion and engagement with a game and game world are "reason[s] for players to begin, sustain, and repeat" play (Klimmt, 2003), but also engage in freeplay in an effort to sustain such enjoyment.

Social interaction within play is a core concept in many traditional definitions (Fine, 2002). Social play has been observed in children and the linkages between play and freeplay behaviours can be seen in parallel play, associate play, cooperative play and onlooker behaviour as described by Parten (1933). Similarly, social play in videogames is a crucial aspect of the gaming experience. Single player games can be played with others in a shared space such as a lounge room, and multiplayer games can be enjoyed by a small group of friends or define new friendships through online play – culminating in an immersive experience (Sweetser, Johnson & Wyeth, 2012; Sweetser & Wyeth, 2005). In the context of videogames, Bartle (1996; 2004) has acknowledged the importance of this social play through the identification and discussion of the *socialiser*, *griefer* and *networker* player types. Brown and Vaughan (2009) also acknowledge the social element of play through the player personality of the *competitor*.

Nachmanovitch describes freeplay as *spontaneous* improvisation (1990), however spontaneity in play is not a concept exclusive to the phenomenon of freeplay. Rather, spontaneity is another facet that is discussed throughout many definitions of play more generally (Caillois, 1961; Piaget, 1951). Sutton-Smith (1997) acknowledges the spontaneous nature of play through the rhetorics of play as imaginary and play as the frivolous. Brown and Vaughan also discuss the spontaneity of improvisational play (2009).

The *structure* of a videogame, being the rules (Caillois, 1961; Mayra, 2008; Zimmerman, 2004), goals (Bartle, 1996; Huizinga, 1949; Piaget, 1951; Spencer, 1873; Vygotsky, 1978), mechanics and design of the game world, are the components that define the videogame and the possibility space for play freeplay. The spectrum of paidia through to ludus describes structured and unstructured play, respectively (Caillois, 1961). The unstructured play described by Piaget (1951) provides insight into the phenomenon of freeplay.

Perhaps the most common aspect of play as featured in definitions and discussions throughout the literature, is the *voluntary* and discretionary nature of play (Huizinga, 1949). Play which is anything but voluntary, is not by definition play. In the context of videogames, the activities that constitute freeplay are freely engaged in by players (Mandryk, 2001), more so than the primary objectives and challenges presented by the game.

Freeplay exhibits many of the characteristics of play, as it itself is a form of play. It is the goal of this project to identify the unique features that define the distinction between play and freeplay. Thus, these characteristics of play and freeplay act as a framework for which to situate the study and accompanying interpretive phenomenological analysis.

2.10 Summary

Literature that encompasses the key concepts of this study has been explored throughout this chapter. Play and games are intertwined concepts, which are pertinent to the context of videogames, with many theories of play forming the basis for the current definitions of freeplay. However, the phenomenon of freeplay lacks a formal definition for how it occurs in the context of videogames, with many definitions relying on existing concepts of play more generally. As freeplay is a subset of play, it is necessary to utilise such theories to build a more refined definition. Beyond the examination of freeplay, the concepts of emergence and emergent gameplay, engagement and flow, and creativity are explored. Through an examination of the literature, there emerged seven key characteristics that apply to

the phenomenon of freeplay: creativity, exploration, immersion, social, spontaneous, structure, and voluntary. They will be used to guide and inform the remainder of the research presented herein.

Chapter 3: Research methodology

This study explores the phenomenon of freeplay from the perspective of players, examining the play activities they participate in while not playing the primary objectives of a videogame. It aims to understand how the experiences of players can be used to formulate and encapsulate the phenomenon of freeplay as it occurs within the context of videogames. This chapter outlines the methodology chosen for this study. It begins with a discussion of research methods, followed by the origins and history of phenomenology as a qualitative technique for use in this study. Within this discussion the variations of phenomenology, which include interpretative and descriptive forms, are examined. An interpretive phenomenological approach (IPA) is chosen and validated as the method applied in this study. This is followed by an elucidation of the research design and procedure.

3.1 Research Methodologies

The chosen research methodology defines and guides the course of action a researcher takes in attempting to answer a research question or explore an aspect of a domain not yet fully understood. These methodologies vary in their approach based on the type of data and intended outcome from the research, on a spectrum of quantitative to qualitative designs (Newman & Benz, 1998). Quantitative research emphasises objective collection and statistical analysis of data "by examining the relationship among variables" (Creswell, 2013; pg 11). Qualitative research presents as a means for exploring concepts through open-ended opinions and insights provided by participants (Creswell, 2013; pg 13). A mixed methods approach may also be taken in which both qualitative and quantitative data is collected and analysed.

Qualitative research is favoured in instances where a phenomenon needs to be conceptualised and a broad range of variables is unknown to the researcher. Though, through a qualitative research approach a broad view of a phenomenon can be observed (Creswell, 2013). Thus, for the purposes of this study a quantitative

approach does not suffice as freeplay in videogames is a phenomenon not yet satisfactorily explored and as such to develop a contextualisation of the freeplay phenomenon a qualitative approach will be followed. This research adopts a constructivist world view, in which the research "listens carefully to what people say or do in their life settings" (Creswell, 2013; pg. 8). Without a clear definition for the concept of freeplay in videogames, a quantitative approach cannot be utilised to the fullest extent. The research findings presented in Chapter 4 could be used as a basis for a quantitative study in the future.

3.1.1 Qualitative research methodologies

Qualitative research endeavours to explore and describe the behaviours, perceptions and experiences of a group (Creswell, 2013; Guest, Namey, & Mitchell, 2012). This mode of research attempts to understand and construct meaning through interpretation of a phenomenon and its participants (Denzin & Lincoln, 2011; Merriam, 2009). It encompasses a variety of methodological approaches (Creswell, 2013; Smith, Flowers, & Larkin, 2009), including:

- *Grounded theory* (Corbin & Strauss, 2007) involves the collection of data throughout multiple stages. Collected data is abstracted and organised into categories or themes (Glaser & Strauss, 1967),
- *Narrative research* (Riessman, 2008) extracts data from the personal memories and comments of participants, and is presented as a chronological narrative by the researcher (Creswell, 2013),
- An *ethnography* analyses the patterns of behaviours and languages within groups in natural settings scenarios (Boellstorff, Nardi, Pearce, & Taylor, 2012); and
- *Phenomenology* explores the experiences of participants as they describe a phenomenon in which they have engaged (Creswell, 2013).

In essence, qualitative research is exploratory and is suitable for developing an initial understanding of a complex phenomenon, such as freeplay, as it occurs in the context of videogames. The experiences of all participants contribute to the

conceptual image of the phenomenon being explored and is added to by the diverse experiences and contexts that each participant provides. For these reasons, a phenomenological approach has been chosen for this research.

3.1.2 Phenomenology

Phenomenology, as a common qualitative methodology (Creswell, 2013), describes the *lived experiences* of a population. Phenomenology has evolved into two distinct primary approaches, *descriptive* and *interpretive* (Giorgi, 1992; Moustakas, 1994), but at its core it remains focused on exploring the collective experiences of individuals.

Descriptive phenomenology reflects the approach presented in the work of Husserl who is regarded as a pioneer in the field of phenomenology at the start of the 20th century (Lopez & Willis, 2004). Husserl's approach emphasised the need for the researcher to create a clear distinction between what was being observed, and personal prior knowledge and biases. This process is referred to as *bracketing* and requires the researcher to provide critical distance (Fernández-Vara, 2015), setting aside any prior knowledge and preconceptions to see participant experiences with clarity (Moustakas, 1994). Bracketing is often used as a technique for understanding the meaning of an experience, rather than the experience itself.

Heidegger (1988), a student of Husserl, advanced interpretive phenomenology as an evolution of descriptive phenomenology, stressing the value of examining an experience in conjunction with prior knowledge, and the necessity of researcher presumptions as a means for propelling an investigation forward. The value of bracketing as a distancing technique is seen by interpretive phenomenologists as inconsistent, artificial and limited to the description of an experience (Koch, 1995). Interpretive phenomenology is then the process of understanding all aspects of an experience, including its description and motivations, and suggests that findings are a combination of participant and researcher experiences (Smith et al., 2009).

Exploring the freeplay experiences of participants, as they interpret games and create their own personal challenges and goals resulting in prolonged gameplay, is akin to the primary motivations of an interpretive phenomenological analysis, as play is a unique and personal experience. Phenomenological methods are suitable for game analysis in a variety of situations where it is necessary to understand subjective experiences and reduce a phenomenon to the essential elements of its composition (Fernandez-Vara, 2014). Previous research in the domain of games studies has seen phenomenology used in a variety of fields; players' making sense of their gaming experience (Chappell et. al, 2006), understanding subjective game-play experiences and judgements (Mallon & Webb, 2006), exploring the relationship of the avatar body (Crick, 2011) and player body (Sommerseth, 2007) in contemporary videogames, and pursuing the role of virtualising imagination and fiction (de Warren, 2014). Interpretive phenomenology is a suitable method for understanding the phenomenon in the context of videogames as presented in this study. It provides an appropriate ground-up, player-centred, inductive research approach for examining the personal experiences of players as they engage in freeplay.

These personal experiences that categorise the phenomenon of freeplay are then organised with respect to the literature using the framework method. The framework method (Ritchie & Spencer 1994, Ritchie & Lewis, 2003) describes a systematic and flexible means for presenting and ordering data for analysis (Gale, 2013). It offers a flexible, systematic, rigorous and transparent audit trail and was applied to manage and assist data management within the characteristics of freeplay identified in Chapter 2.

3.2 Methodology

3.2.1 Research design

A phenomenological approach was adopted, using semi-structured interviewing techniques to investigate how players describe the freeplay experiences, to facilitate the researcher's understanding of the contexts in which freeplay occurs. Semi-

structured in-depth interviews (Leech, 2002) were conducted to gather qualitative data in the form of key concepts and perspectives of freeplay in the context of videogames. Guiding questions were prepared prior to the interviewing process (see Appendix A). In keeping with the phenomenological experiential approach, additional questions were posed to explore dominant themes and concepts that emerged during the course of the interviews. The primary researcher performed all data collection and explication.

To investigate the primary research questions, which have been restated below, 8 guiding questions and 20 sub-questions were developed.

RQ_1 What is freeplay in videogames?

RQ_2 What are the characteristics of freeplay in videogames?

The guiding questions align with the research questions (as shown in brackets) and aimed to:

- specify instances where videogames were played in ways other than originally intended (RQ1),
- identify instances where personal rules or goals are defined by players (RQ1),
- determine what activities players engaged in to prolong gameplay (RQ1),
- discuss times where rules were broken or exploited by players (RQ2),
- understand at what point players consider a game completed or finished (RQ2),
- identify player preferences with respect to in-game achievements and completing the main narrative of a game (RQ2),
- understand player replay practices (RQ2),
- identify instances where players played games differently to how they perceived other players play videogames (RQ2); and
- identify general gameplay experiences (RQ1 and RQ2).

Interviews were carried out face-to-face where possible, and audio recorded for data retention, accuracy and examination. Where interviews could not be performed face-to-face, phone or Skype calls are deemed as appropriate alternatives. Each session was expected to take a minimum of 45 minutes.

3.2.2 Data explication, analysis and validation

Phenomenological research favours explication over analysis; retaining the phenomenon as a whole rather than segmenting and breaking the phenomenon into its components (Groenewald, 2004). In keeping with this approach, NVivo was used to process interview transcripts through coding and extraction of the common themes from the transcripts of each interview and the written notes of the interviewer/researcher. Hycner (1999) presents a process for explicating data in phenomenological studies (Groenewald, 2004; Moustakas, 1994). These phases are echoed in the work of Smith and colleagues (2009), and include:

- Phenomenological reduction, where the researcher reviews interview transcripts for significant statements, sentences and quotes to develop a thorough understanding of the perspectives and nuances expressed by participants. These transcripts are read multiple times to develop a clear understanding of the participants' experiences.
- Units of meaning with respect to the phenomenon of freeplay in videogames are then extracted from the data. During this phase, the interview transcripts are examined with the aim of defining conceptual nodes for coding. These nodes reflect the descriptive, linguistic and conceptual aspects of the phenomenon.
- Clustering units of meaning to form themes, where the researcher identifies topics, themes and categories deemed significant to the study begin to emerge.
- Summarising, validating and modifying, where the researcher presents a holistic interpretation of the phenomenon of freeplay as revealed through analysis of the interviews. During this phase, the researcher returns to each interview to check validity of this summary to ensure consistency. These

summaries are generated through numerous processes, including: abstraction where similar themes are grouped together, polarisation where opposite themes and concepts are considered, contextualisation and numeration where the frequency of a theme emerging is considered.

- The explication process will conclude by extracting themes from all the interviews and making a composite summary. Common and unique themes from the interviews are then refined and a composite summary of freeplay in videogames is presented.

The analysis of data collected through phenomenological studies is often a fluid and iterative process. Smith (2007) describes the process of analysis and explication of data as cyclic. Emergent patterns and themes are identified and developed into a structure that demonstrates the relationships between themes. Interpretive phenomenological analysis (IPA) also respects reflections of the researcher as valid contributions to understanding a phenomenon.

Integrating reflections into research is a core feature of qualitative research methodologies (Creswell, 2013), and interpretive phenomenological analysis. The researcher must be transparent about interpretations and endeavour to minimise bias. Smith and Osborn (2015) suggest that the sequencing of questions is an important aspect of minimising bias, allowing participants to provide their responses before asking follow-up questions and guiding participants towards necessary information. The bottom-up approach to data explication allows categories and themes to emerge naturally. Furthermore, the researcher must adopt a non-judgemental and open-minded approach to data analysis.

3.2.3 Participants

For this study a sample size of 10 was the target. Small sample sizes of at least 6 (Smith et al., 2009) and at least 10 (Boyd, 2001; Creswell, 1998; Mason, 2010) participants are considered sufficient to reach saturation in phenomenological studies. Purposive sampling methods (subjective selection) are used to select participants deemed to have sufficient experience and knowledge of videogames to

contribute to the discussion. This sampling technique is regarded by Welman and Kruger (1999) as important non-probability sampling, crucial to developing an accurate understanding of a behaviour. This, can be used to further understand how players engage in freeplay in videogames.

3.2.4 Procedure

The data collection phase of this study took place throughout May and June 2015. The semi-structured interviews were performed with 13 participants between the ages of 19 and 33. Interview duration varied between 30 minutes, to upwards of 2 hours. The average interview lasted 1 hour and 10 minutes. Some participants had limited freeplay experiences, whilst others had a plethora of examples and were willing to go into more detail, thus more time was required. Of the 13 interviews performed as part of this study, 11 interviews were conducted at the author's university, face to face. These interviews were recorded using both a Blue Snowball condenser microphone and the built-in voice recorder app for iPhone. Of the remaining interviews, one was conducted and recorded via Skype and the other was conducted over the phone.

Prior to the commencement of interviews, participants were given an information statement describing the study and its purpose, while ensuring participants understood that their involvement was voluntary and confidential. Participants were also given a consent form, confirming their approval for data collection and audio recording procedures, and to ensure participants understood the purpose of the interview. At the commencement of the interview, audio recording commenced and participants were asked to confirm they had received a copy of the participant information statement and consent forms, and to indicate their consent for audio recording. Following this, the interviewer began with the same general questions about the participants' gameplay experiences. These questions were designed to develop rapport, while gaining a clear understanding of the participants' previous gameplay experiences, preferred titles and genres of videogames. Following this, participants were asked questions relating to the types of activities they engaged in whilst playing videogames. These questions, presented in Appendix A, explored

instances where participants played videogames in ways that were not an originally designed objective of the videogame, and included instances where rules and objectives were defined by the player. Attitudes towards achievements, game completion and points at which players stopped playing a videogame were also explored. Participants were also asked about their videogame replay experiences. The interviews concluded with open-ended questions where participants could provide further insight into their game playing preferences and experiences.

Audio from each interview was recorded (Arksey & Knight, 1999; Bailey, 1996), and a denaturalist, verbatim (Oliver, Serovich, & Mason, 2005) transcript generated by the primary researcher with the assistance of an online transcription tool (http://www.wreally.com) and professional transcription services. The primary researcher recorded field notes and memos during each interview, logging researcher thoughts and reflections as they occurred (Lofland & Lofland, 1999; Miles & Huberman, 1984). At the conclusion of each interview, participants were given a gift card in appreciation for their time and participation.

3.2.5 Ethics

Any investigation involving human participants requires ethics clearance to mitigate any physical or psychology trauma as a result of participation in research. An application was submitted to and approved by the University Human Research Ethics Committee (HREC). The application outlined the perceived risks to participants. As interviews were conducted with known participants, anonymity could only be guaranteed to all except the researcher/interviewer. Privacy and confidentiality of responses is of utmost importance to the researcher. As interviews were conducted with participants known to the interview/researcher, it is the duty of the primary researcher to ensure confidentiality is maintained throughout all stages of the research. Consent for audio recordings and participation in this study, was sought from participants before interviews commenced. Privacy and confidentiality were maintained in the de-identification of notes and transcripts. Participant names displayed in the next chapter are pseudonyms.

As the intention of this study was to examine the essence of the freeplay phenomenon as experienced by videogame players, it follows that the validity of results is indicative of their own personal lived experiences. These recollections and experiences contribute to the nature of understanding the phenomenon in this context.

3.2.6 Data-storing methods

Data collected included audio recordings and field notes. Audio was recorded via two devices. At the conclusion of each interview, the audio files were saved to the local, password-protected computer. At the end of each day of interviewing, audio files were backed up to a secure server. Field notes were organised via a participant identification number. This number was used to correlate memos and field notes with audio recordings. The majority of audio files were transcribed using a denaturalist approach by the researcher, with transcribing services used for the remaining audio files. Transcripts were stored digitally on a password-protected computer and backed up to a remote, secure server. In accordance with professional transcribing policies, transcribing services deleted all copies of audio files and digital transcripts at the conclusion of the job. Audio files provided to the transcribing services were checked to ensure any names or other identifiable information was not transferred. Edits were then made to the audio files to protect participant anonymity and confidentiality.

3.3 Summary

Phenomenology is a commonly used qualitative research methodology for studies where the capture of lived and personal experiences of participants is imperative. Interpretive phenomenology is particularly valuable as it respects both participant and researcher knowledge and experiences in attempting to conceptualise the experiences being investigated. The application of interpretive phenomenology for this study took the form of semi-structured interviews beginning with 8 guiding questions and 20 sub-questions. In total 13 participants were interviewed, resulting

in the collection of 293 pages and 131,000 words of transcribed data. In the next chapter the findings from this research are presented.

Chapter 4: Findings

This chapter reports the findings that emerged from the interviews conducted as part of the interpretive phenomenological methodology and organised using the framework identified in Chapter 2. Contextual descriptions of the interview participants are presented, followed by a discussion of the key themes identified during analysis and explication. Evidence of freeplay in videogames was found in all participant responses, and was characterised by several key themes and concepts. The characteristics presented in this study have been summarised in Table 1, and were derived from the literature on play and freeplay (Brown et al., 2000; Caillois, 1961; Huizinga, 1949; Mandryk, 2001; Nachmanovitch, 1990; Vygotsky, 1974). The themes are those concepts that emerged from the interviews, and extracted from the meaning-units identitied during the IPA. The characteristics are the elements of freeplay deduced from the literature survey.

Table 1

Summary themes identified through Interpretive Phenomenological Analysis of interviews categorised by freeplay characteristics.

Characteristics	Themes Identified through IPA
Creativity	affordance, interface, goal setting, difficulty, discovery
Exploration	curiosity, open world, sandbox
Immersion	engagement, mastery, prolong play
Social	community, competition, dispute resolution, interactions, observation
Spontaneous	discovery, engagement, variation
Structure	achievements, control, freedom, objectives, variation
Discretion	gameplay, optional

The following are a set of short biographies of each participant. These biographies are presented as a means of grounding and providing context for the findings as presented, by providing background information as to the participants gameplay preferences and overall videogame experiences.

4.1 Participants

As described in the research design for this study, a minimum of 6 (Smith, Flowers & Larkin, 2009) or 10 (Boyd, 2001; Creswell, 1998; Mason, 2010) participants were required in order for the results to be considered relevant. The study was performed in May and June 2015. Thirteen interview participants between the ages of 19 and 33 were selected using purposive sampling techniques and interviewed. Prior to any interviews taking place, participants were asked to reflect on their videogame gameplay experiences and to consider whether they identified themselves as a novice, casual, core, or hardcore gamer (Adams, 2002). It was determined after the initial 10 participants that new themes and examples were emerging, and saturation had not yet been met. For the purpose of this study, gameplay duration or gameplay frequency were not considered major deterministic factors of sufficient gameplay experience, as any engagement in freeplay would be considered relevant to this study. Rather, a range of gameplay experiences and familiarity with multiple videogame franchises to that of a core or hardcore gamer were considered more valuable. The sample deemed to have sufficient gameplay experience included 3 female and 10 male participants. A brief description of each participant has been included below. Although these descriptions are not integral to addressing the research questions identified in Chapter 1, they contextualise the findings presented later in this chapter and the next. Each participant has been given a pseudonym to protect their identity, and to assist with readability of the text.

Participant 1: Amy (23) had been playing games since a young age, often using videogames as a bonding tool to form new friendships with other players and foster pre-existing relationships with her friends and family members. She enjoys exploring worlds driven by narrative, generally preferring multiplayer games including *League of Legends* (Riot Games, 2009) and *Guild Wars 2* (ArenaNet, 2012). *Journey*

(thatgamecompany, 2012), *Bioshock* (2K Games, 2007), and *Transistor* (Supergiant Games, 2014) were also cited as some of her favourite videogame franchises. With respect to freeplay, Amy finds enjoyment in spontaneous activities, which appear to have no specific reason or motivation, claiming to frequently "muck around" in games.

Participant 2: Brooke (23), began playing videogames during early adolescence, and names *Grand Theft Auto* (Rockstar Games, 1997-), *Pokémon* (Nintendo, 1996-), *Mass Effect* (Electronic Arts, 2007-), *The Elder Scrolls* (Bethesda Game Studios, 1994-), and *The Sims* (Electronic Arts, 2000-) as being some of her favourite videogame franchises. Freedom within a videogame is an important factor to this participant, and contributes to her overall enjoyment of the game. Brooke feels that collecting achievements is an important aspect of the game, often more so than the videogame narrative. A large portion of Brooke's freeplay within videogames is inspired by online gaming communities, and social media channels such as Achievement Hunter. She also invents new rules and game modes to prolong the game and therefore play, whilst also finding and exploiting glitches within the game.

Participant 3: Charlie (26) started playing games 16 years ago, and has since found videogames act as a tool for social interaction and engagement whilst playing with friends and family. He enjoys shooter and action/adventure games for example *Destiny* (Bungie, 2014), *Counter Strike* (Valve, 1999), *Halo* (Bungie & 343 Industries, 2001–), *Pokémon*, and *Runescape* (Jagex, 2001) respectively. A large segment of his freeplay activities stem from self-devised challenges during play. Some of these challenges and additional game modes are influenced by social media and external influences such as Achievement Hunter (an online community and channel of players broadcasting their various gameplay experiences).

Participant 4: Dan (19) is generally a social player, and finds enjoyment playing multiplayer or co-op games. As a child he enjoyed games such as *Crash Bandicoot* (Naughty Dog, 1996), *Pokémon*, and *Super Smash Bros* (Nintendo, 1999), and more recently *Kingdom Hearts* (Square Enix, 2002), *League of Legends*, and *Journey*, with the narrative of the game being a primary point of influence during play. With

respect to freeplay, Dan generally stays true to the game as it is presented, although he is more likely to deviate from the main narrative and objectives of the game when playing with other players. As a result, he has played various player and community defined game modes, such as playing a version of hide and seek in *League of Legends.* Dan feels that play in videogames is akin to a sense of discovery and curiosity, and considers exploits and glitches "up for grabs". He has no acknowledged motivations for doing these freeplay activities, aside from combating boredom and a desire to reinvigorate his gameplay within a chosen title.

Participant 5: Ethan (26), has been playing videogames for more than 20 years, and has expressed preferences towards open roleplaying games and franchises such as *The Elder Scrolls*, *Grand Theft Auto*, *Mount and Blade* (Paradox Interactive, 2007), and *Fallout* (Bethesda, 1997), as these games permit multiple replays and emergent gameplay with varied outcomes. Ethan prefers gameplay driven by the story, with in-game achievements and collectibles having little or no importance. With respect to freeplay, Ethan stated he was more likely to play the game as it was intended to be played, however in some instances he makes spontaneous changes to the game. An example of this, would be driving backwards in a racing game. Ethan believes he is more likely to engage in freeplay when the game becomes too familiar, and he becomes too comfortable with the rules of the videogame.

Participant 6: Flynn (24) started playing videogames 20 years ago with games like *Pokémon*. Flynn prefers single player games, though he also enjoys playing games with other people in the same room. He often gravitates towards role-playing, fighting, and first-person shooter games, however generally avoids online multiplayer games citing negative player attitudes and personalities significantly impacting the enjoyment of online play. Furthermore, he considers games classified as part of the multiplayer online battle arena (MOBA) genre, which considers games like *Defence of the Ancients (DOTA) 2* (*DOTA 1* was originally a mod[2] for *Warcraft*; Valve, 2013) and *League of Legends*, to be repetitive and boring. He finds enjoyment

[2] Mod – an optional installation of software that physically alters the game in some form.

“mucking around” in the game, and when playing with friends as part of a team or as a group, will devise new rules and game modes. Social media and streaming services such as Twitch and YouTube form a key component of this participant’s play style, with many instances of freeplay being inspired by this vicarious play. Flynn sees videogame achievements and narrative as being equally important to his gameplay and enjoyment of the game.

Participant 7: Garret (25) is primarily a console player preferring action, first-person shooters, and occasionally real-time strategy games. He started playing games such as *The Legend of Zelda: Ocarina of Time* (Nintendo, 1998) and *GoldenEye* (Nintendo, 1997) as a child. Although single player games are preferred, he will occasionally play with someone else via local co-op. Garret recounts multiple instances of freeplay when playing the *Halo* series, and as such often replays videogames, but not often from the beginning. Garret feels the narrative is one of the more important aspects of a videogame, citing the story of the videogame as a reason for continuing or abandoning gameplay. He values the ability to explore, and the inherent freedom that some videogames afford. He finds enjoyment in making up new rules and gameplay, and setting personal challenges.

Participant 8: Hunter (23), started playing videogames at the age of 6 or 7 with game franchises like *Spyro* (Insomniac Games, 1998) and *Crash Bandicoot*, but more recently gravitates towards multiplayer games such as *League of Legends* and *Battlefield* (Electronic Arts, 2002-2015). When playing single player videogames, he enjoys game franchises like *Mass Effect* and *Dragon Age* (BioWare, 2009-2014). This participant enjoys games where players are given meaningful choice (emergent gameplay). His play is motivated by the story and by friends, and he states that he is not driven by achievements. Hunter finds many videogames quickly become repetitive, and it is common for him to reinvigorate his gameplay by inventing new rules and game modes. He often discovers interesting and novel activities and challenges within games by watching other players at play, and through social media and video streaming services such as YouTube and Twitch. When playing online, this participant often engages in griefing – where other players are deliberately tormented, harassed, and irritated for personal enjoyment.

Participant 9: Isaac (20) also started playing videogames at the age of 6 or 7, with titles such as *Super Mario 64* (Nintendo, 1996), *Pokémon*, *GoldenEye 007*, and *Grand Theft Auto: Vice City* (Rockstar Games, 2002). He identifies primarily as a console gamer, enjoying adventure/role-playing franchises such as *InFamous* (Sucker Punch Productions, 2009), *Dragon Age*, *The Witcher* (CD Projekt, 2007-2015), and *Grand Theft Auto*. Isaac is somewhat motivated by the narrative of a videogame and will aim to complete it, with the exception of MOBAs such as *League of Legends* and some first-person shooters including *Call of Duty* (Activision, 2010), and *Battlefield*. He feels achievements were once an extremely important aspect of his gameplay, but now considers developers of modern videogames are making achievements harder to achieve. Isaac feels that achievements contribute to his understanding of when a game is finished, and also provide a sense of satisfaction. He will regularly participate in freeplay activities such as the Mike Myers player defined game mode in *Call of Duty* and the types of activities featured in the *Things To Do In* series (RoosterTeeth Productions, 2011), *Achievement Hunter* (RoosterTeeth Productions, 2008), and *GameFails* (2009). He also engages in forms of freeplay where aspects of the game are exploited for personal enjoyment, for example playing basketball with utility vehicles in *Grand Theft Auto 3* (Rockstar Games, 2001). He has also witnessed and participated in gameplay where players enact their own rules, such as not equipping a particular piece of equipment in *Call of Duty: Modern Warfare 2* (Activision, 2009) so as to unbalance the game and increase difficulty. Isaac enjoys “mucking around” in videogames with friends via co-op, again exploiting physics, mechanics, or artefacts of the game, and also making art in videogames like *Minecraft*.

Participant 10: Joel (24) began playing videogames as a child in primary school, with *Spyro* and *Pokémon Stadium* (Nintendo, 1998). He now mostly engages in role-playing games, in particular Japanese role-playing games like *The Last Remnant* (Square Enix, 2008), and franchises including *Final Fantasy* (Square Enix, 1987), *Kingdom Hearts*, and *Fable* (Microsoft Game Studios, 2004). In particular, Joel likes the creativity associated with developing a unique character and watching it evolve. In addition, he enjoys first-person shooters, citing videogames such as *Call of Duty* and *Gears of War* (Microsoft Studios, 2006) as some of his favourites. He also

spends lots of time playing *League of Legends* online with friends, but considers himself largely a single player even though he often engages with other users online. His perceptions of when a game is finished have changed over time. What started out as play largely motivated by the narrative, has shifted to an emphasis on game completion and online play longevity with multiplayer campaigns, quests, and achievements taking precedence. Joel considers achievements to be an important aspect of his gameplay. He will often replay videogames for the purpose of finishing the game or reliving previous gameplay experiences. With respect to freeplay, Joel mostly engages in gameplay modes defined by other players in multiplayer videogaming contexts, such as the Mike Myers game mode in *Call of Duty*, the Nuzlocke Challenge in the *Pokémon* franchise, and variations of hide and seek in games such as *League of Legends*.

Participant 11: Kaye (25), was introduced to videogames as a child via her older siblings, playing console games such as *James Pond* (Electronic Arts, 1990), *Sonic the Hedgehog* (Sega, 1991), and *Street Fighter* (Capcom, 1987). As she grew up, she started playing the simulation games *SimCity*, and *The Sims*. Her gameplay is driven by the narrative, unless she has thoroughly enjoyed the game and wishes to continue playing or replaying any parts of it if she can. Kaye enjoys the *Batman: Arkham* series (Rocksteady Studios, 2009-2015), but also enjoys the nostalgia of *Monkey Island* (LucasArts, 1990). Generally, she enjoys mystery and puzzle games, but also enjoys the atypical gameness of videogames such as *Dear Esther* (The Chinese Room, 2012). She takes pride in achievements, if they incidentally happen while playing, but does not feel the need to go back and complete them following completion of the narrative. Kaye tends to favour multiplayer games where local co-op is an option, and often plays single player games with friends or family, collaborating to solve challenges and taking turns. The freeplay examples identified by Kaye revolve around physical challenges and custom rules as determined when playing with others. She is more likely to engage in freeplay after becoming bored with playing the game normally.

Participant 12: Lachlan (34) has been playing videogames for more than 30 years, having started at the young age of 3 or 4 with the Atari 2600, playing games like

Combat (Atari, 1977) with a friend, in addition to arcade games like *Moon Patrol* (Atari, 1982). He grew up with adventure and platform games, and cites *Mega Man* (Capcom, 1987) as his favourite game, however, he also enjoys the original *Super Mario Bros* (Nintendo, 1985), *Prince of Persia: Sands of Time* (Ubisoft, 2003), *Portal* (Valve, 2007), *Civilisation* (Hasbro Entertainment, 1991), and *BioShock*. He often sets personal goals or rules whilst playing, such as the common Three Heart Challenge in *The Legend of Zelda* franchise (Nintendo, 1986), but also engages in freeplay where mechanics and artefacts of the game are exploited. Lachlan can recall engaging in activities akin to speed-running before the activity was known to the wider community. He sees games as art and as a storytelling medium. He has very little interest in achievements, but knows achievements are an important part of the game. He feels achievements come with a drawback; there is no sense of discovery anymore because achievements are activities developers think of, and reflect no aspect of creativity by the player. Although he acknowledges that there is an element of excitement and enjoyment when the player completes an achievement, he feels somewhat disappointed that the activity is being novel or unique to the player.

Participant 13: Matt (28), cites videogames as being a major component of his life to date, having started playing games at the age of 4. His favourite videogames are *GoldenEye 007* and *Fallout 3* (Bethesda Game Studios, 2008), specifically for the afforded ability to explore, and the freedom of decisions and choice that have a meaningful impact on the game. Although he prefers multiplayer games and "mucking around" with friends, limited availability of other players means the majority of his gameplay is as a single player. He feels the narrative is important to videogames, but strongly dislikes achievements; he makes a habit of not completing or engaging in achievements, stating that "they guide you to do something that is fun but by adding a reward to it, it makes it something that you don't want to do just for the sake of it." This participant tends to regularly replay games, often using them as a tool for relaxing and clearing his head, and compares videogames to being almost "like a toy you don't stop playing with. It's done when you stop playing with it." However, he does acknowledge that there is a saturation point with games. Matt frequently engages in freeplay behaviours, including setting his own goals, rules,

and challenges, and generally “mucking around” in the game. He also finds joy in griefing other players, finding glitches in games, and exploiting game mechanics and artefacts for personal advantage and entertainment.

The participant summaries outlined above present a diverse range of gameplay experiences, with many of these originating in childhood. Each participant has demonstrated a sufficient level of familiarity with videogames to warrant inclusion in this study. This was assessed informally prior to the commencement of each interview, with participants being asked whether they played videogames, and how much they played. In the following section, the key themes from interviews with these participants is presented.

4.2 Characteristics and Themes

The research implemented the explication and analysis method as outlined in Chapter 3. Interpretive phenomenology tends to favour data explication over the traditional data analysis found in other methodologies (Groenewald, 2004). Throughout the explication process, the researcher read through each transcript numerous times. To begin, the researcher read through each transcript to gain an overall sense of the content. From the literature on play and freeplay, seven universal characteristics were identified: *creativity* (Brown & Vaughan 2009; Dietrich, 2004; Guilford, 1950; Koestler, 1964; Lehman & Witty, 1927; Nachmanovitch, 1990; Raphael-Leff, 2009; Shepard, 2012; Vygotsky, 1978;), *exploration* (Pisula, 2008; Tavinor, 2009; Tuminaro, & Redish, 2007), *immersion* (Chen, 2006; Csikzentmihalyi, 1990; Sweetser, Johnson & Wyeth, 2012; Sweetser & Wyeth, 2005), *social* (Fine, 2002; Parten, 1933;), *spontaneous* (Caillois, 1961; Nachmanovitch, 1990; Piaget, 1951), *structure* (Caillois, 1961; Piaget, 1951), and *discretion* (Huizinga, 1949; Mandryk, 2001). These were used after coding the transcripts consistent with the IPA methodology to organise the findings and assist with aligning the results to the literature. Key statements and quotes from each transcript and associated notes were coded using nVivo (Version 10 on Mac) and clustered. Following this, all coded meaning units were then re-read for accuracy, and original transcripts re-read to

ensure no significant statements or concepts deemed relevant to the study had been missed.

The following sections outline the basis of each characteristic and themes cluster within, presenting anecdotal evidence from transcripts to support the theme as a component of freeplay in videogames. During data explication, it was not uncommon for some key statements to be relevant to more than one theme. As such, some themes and quotes will appear in multiple categories. Findings from this research are presented below, and further discussed in the next chapter. Additional supporting quotes for each characteristic and theme can be found in Appendix B.

4.2.1 Creativity

Creativity in play has been well established as a means for providing players with an opportunity to explore and learn through doing (Nachmanovitch, 1990; Raphael-Leff, 2009; Shepard, 2012). Play can also be a means for allowing players a way to experiment and become creative (Steiner & Trostli, 1998). Within the creativity characteristic, five themes were revealed: affordance, control, defining, difficulty, and discovery. The theme of affordance relates to instances where participants used the fundamental components, artefacts, and mechanics of a videogame to devise new and inventive gameplay, make art, and find novel applications and uses for the videogame. Interface reflects the way in which players were able to assert control over a videogame, and find innovative ways for interacting with the videogame via a controller. The third theme, goal setting, considers the game modes, rules, and challenges that players would devise and implement into their gameplay. Difficulty, the fourth theme, examines the creative techniques players utilise within their gameplay to increase, decrease or otherwise alter the difficulty of a videogame or part thereof. Lastly, discovery elucidates the circumstances upon which creativity of freeplay in videogames arise, whether they may be accidental, through intrigue and enquiry, or sourced externally to the player. Table 2 contains a sample of supporting quotes for each of the themes identified as part of the creativity characteristic of freeplay.

Table 2

Creativity: Themes and supporting quotes

Theme	Supporting Quotes
Affordance	"We used Minecraft as a tool to be artists … you could get pixel images from the golden age of videogames … we had giant pictures of Donkey Kong and Mario. We had a couple of Zelda ones, and the Pacman ghosts and stuff. It was really cool because then you could walk around your world and it had all this art through it and it had all your houses and things." (Isaac) "A lot of the time I'm playing creative [in Minecraft] where I can create those things. Again it's more of an outlet for me." (Flynn) "There were a lot of times where we'd not so much turn on each other but we would play against each other … we would have a little mini game and then get back to the actual game. Or we would create something like the Tetris thing, or we would try and shoot the canisters, and see what happens." (Garret) "The game affords you the opportunity … it even encourages the opportunity. Games give you the opportunity to do things you cannot do in real life, or maybe you shouldn't do in real life. I am a very cautious motorist; I've never gone over the speed limit. I obey rules and all that, but in a game like [Grand Theft Auto], if you're on a motorbike, which I'm probably never going to do myself, and you're zipping along at 100 km/h there's a thrill to that cause if you hit the car in front of you and your guy flies off, it doesn't hurt me!" (Lachlan) "Games that have physics really loan themselves to doing stupid stuff because what you can do in a game like Mario Bros is all pretty well defined but you, but when the environment is a little

	bit more open you start being able to make more choices and you start playing and experimenting." (Matt) "One of the things I love about Minecraft is that it has so many psychological connections … have you ever looked into the Mind Palace Theory? Because every single build I've made I remember where each block is, so I've been able to make these connections like that block is this memory, this block is this … I'm using it as a learning and memory tool." (Flynn)
Interface	"I played Portal with a friend and his screen broke – and obviously with Portal you need your red vision and your blue vision and we couldn't tell which one was which! We managed to fix the colour and we thought it was funny, so we decided to switch the colour back off and we just had to remember which was the red and which was the blue portal. So you were constantly getting rid of your wrong portal like there's my left portal there's my right portal. It was more like a challenge of your memory as well as your dexterity." (Kaye) "We had one where you had to use only your left hand but you couldn't touch any other part of the controller, or only your elbow, or all sorts of bizarre stuff where it was physically demanding to try and do it better than the other person." (Kaye) "We played Mario Cart… where you have to use 2 controllers at once and it was up to you how you did that. So you had to either have one in each hand and drive, or I found a way to do it with my hand and my feet at the same time. And we had some sort of point system for how well both your drivers had to do. So you could try and make one finish and then the other one, or it was we had our own creative control about our best tactic to win … that was one rule that we had to follow." (Kaye)

Goal Setting	"Playing a game called Lara Croft and the Temple of Osiris … there is no friendly fire, so you can't kill your own team mates but this excludes rocket launches, grenade launches, and grenades. So if your friend shoots you with a rocket launcher, you die. When we finished the game we figured it out that you could kill each other with rocket launchers. So we decided to have our own little fighting competition." (Dan) "I would say the imagination side comes more into making your own rules or goals." (Hunter) "We're always looking at ways to try and do more with games in the sense of taking the rules of the game and trying to push them as much as possible, just as we explore game worlds, we're trying to explore the boundaries of abilities." (Isaac) "With Pokémon, sometimes I make challenges. Like at the moment I'm running through Pokémon Leaf Green with just Venusaur. Seeing if I can do it… I thought it would be a good challenge and everyone makes fun of Venusaur, so I thought I'd prove them wrong!" (Brooke) "We basically were pretending that we'd never been given any weapons. And that's the rule of the game. You don't have a weapon, and you never had one. You only have your fists, and somehow you have to survive against all odds with just your fists." (Garret)
Difficulty	"[The Nuzlocke Challenge is] playing on super hard mode. Instead of your Pokémon fainting [(losing all its health points)] and being able to be restored … it's considered dead, and you have to release it never to be used again … Ever since it's become so popular, people have given it further restrictions, like

	not being able to have two Pokémon of the same type, that kind of thing." (Joel) "Going back to Dark Souls, [sometimes we play] that game naked. [For clarification: the player removes all armour/clothing from the avatar. To the best knowledge of the author, they are not playing the game naked.]" (Lachlan) "I set all sorts of ridiculous challenges, like during some games I'll randomly decide I'm not allowed to get hit at this point and so I'll do a whole boss and if I get any damage I'll load a quick save and go back a bit and keep fighting the boss until it dies and I come through it flawlessly." (Matt) "[In Halo, we were] trying to run through the entire map without killing anyone and having every one chase you. It wasn't always possible because you couldn't always get through. But basically you were just capturing everyone and they were all following you like a massive horde." (Garret)
Discovery	"We were playing [Lara Croft and the Temple of Osiris] and we accidentally killed each other with the rocket launchers and grenade launchers, and we thought it was weird ... We played around with it, and we thought it was really fun." (Dan) "I always see these things happen, cause when you're playing a mission and its the first time you realise [that] ATVs make you fall off really easily… [you] wonder how long [you] can go for on it … So I usually try it out after the mission is finished." (Brooke) "It's something players have discovered they can do so they're going to go ahead and do it. Which I think is pretty cool." (Hunter) "I found an area where there was supposed to just be a wall and you're supposed to go through all these level to get up to the top

	but if you go to the far right side and press jump you get stuck and you can just jump the entire way up the level and just get off, which I thought was funny so I did it." (Kaye) "In games like Minecraft I just make really stupid stuff. I remember one time I was playing it and I found a way to mine through the bedrock and I just fell through the floor of the [world], and that was fun. I'm just doing that crap all the time in games." (Matt)

4.2.2 Exploration

Videogames provide players with a virtual space for which gameplay can take place (Rouse, 2011; Tavinor, 2014). Within this space, players are able to explore the world and its components, and thus find opportunities for freeplay. Three themes were identified as part of the exploration characteristic: *curiosity*, *open world*, *sandbox*. Curiosity reflects the inquisitive nature of players as they engage in exploratory behaviours, testing the physical limits of the game in addition to their own gameplay abilities. Open world considers how players utilise the environment of open world games to engage in freeplay. Sandbox examines instances where players utilise the designed and deliberate sandbox environments of selected videogames to create their own play. Table 3 contains a sample of supporting quotes for each of the themes identified as part of the exploration characteristic.

Table 3

Exploration: Themes and supporting quotes

Theme	Supporting Quotes
Curiosity	"I also like to see how far I can get before a shark will eat me. I don't know, I'm curious to see …" (Brooke) "You're curious, you want to do something you haven't explored. Everyone is curious. Its in our nature to be curious about things we haven't done yet, because we're bored or the current thing we are doing isn't as interesting." (Dan) "So we were like, why don't we explore something new today or something we haven't tried and see who can win this, and see who is better. It was unexplored territory! It was more likely the idea of seeing who was more naturally gifted at driving in reverse …" (Dan) "When I first started playing Minecraft, it didn't have any end game objectives … stuff like the Ender Dragon [boss] and things like that so it was very much you get into the game, you play the game and you try and do whatever you want to do. So I remember a lot of the early Minecraft players were a bit confused about what to do so the big thing everyone tried to do was create rollercoasters for fun." (Matt)
Open World	"This is not me doing the quests or following the narrative, it's me exploring every tiny nook and cranny. It reinvigorates your love for the game, which means now that you're tired of exploring or doing those other things, you can go back to what the game actually intends you to do. I suppose its about keeping the game alive." (Amy)

	"Grand Theft Auto:Vice City was really the first game that really made me realise… there was a whole world and a whole virtual environment that you could escape in." (Isaac)
	"[W]hen you play stuff like Grand Theft Auto or those very open free roaming games, of course you're going to go around on a mass murder spree just to see what happens." (Flynn)
	"One of the things I did was walk backwards across one of the continents, in World of Warcraft … Because other people were doing it and I just joined in I guess." (Matt)
Sandbox	"I feel like a lot of sandbox games or a lot of building games enable you to do stuff like that, like where you're playing God basically" (Dan)
	"You just create your own rules and you're trying to have as much fun in that sandbox environment as you can. But also in a lot of MMOs in the down time when you're raiding and you're at max level, everyone is just looking for something to fill time so they do stupid stuff." (Matt)

4.2.3 Immersion

Play in videogames is immersive, to some degree. As players become engaged with the game they become engrossed in the objectives and narrative of the game and emotional responses to the game are triggered. Flow theory (Csikzentmihalyi, 1994) provides a model for discussion of immersion in a plethora of activities, describing the mental state associated with an activity that is equally challenging and requires a sufficient degree of skill. The immersion characteristic highlighted three themes: *engagement*, *mastery*, and *prolong play*. Engagement considers the range of

emotions players associate with their gameplay and freeplay. It includes instances of play that emerge from boredom and frustration through to other motivators. Mastery examines what role gameplay familiarity and confidence has on freeplay in videogames. Prolong play pertains to the diversity of freeplay activities, and factors that trigger and motivate the various forms of freeplay that emerge. It also considers how videogame replay and repetition within games influences freeplay; a notion that will become clear upon reading the quotes. Table 4 contains a sample of supporting quotes for each of the themes identified as part of the immersion characteristic.

Table 4

Immersion: Themes and supporting quotes

Theme	Supporting Quotes
Engagement	"I don't think there's any other game where it's as easy or tempting to murder people. And have it just be totally acceptable in the game where there are no repercussions whatsoever. In fact it enhances your ability to play the game. And I guess the fact that it would have a complicated outcome in the case. I mean I wasn't just deleting characters, it affected how my other characters in the game behaved. If the neighbour that they became someone that they really hated, I'd be like 'I'll do you a favour. Nice Sim that I like. I'll get the character to jump in the pool and then I'll get rid of the railing and then we can all laugh at them dying." (Kaye) "I love this game, but I'm sick of playing THIS game like over and over again, what can we do to revamp it." (Amy) "A lot of the time with single player games, being bored at the time may not just centre around any particular achievement or something like that. It might be the fact that you've played that game for a long time in multiple different ways. If its suggested

you play the game in a different way, like the Achievement Hunter videos or a speed run video, you're like 'Hey, I might try that'. But there are multiple ways we try and play games differently. Sometimes you go into a game, wanting to break the game, and you're determined to do whatever you possibly can to break the game." (Amy)

"I think the main thing is after you've had extensive experience with a game, maybe you've reached the point where you're comfortable with its mechanics and understand its ability and you're just trying to get something extra out of it. You're so familiar with the rules you're ready to change a little." (Ethan)

"It was basically at the points where it might have been a bit boring or a bit stale we'd just mix it up." (Garret)

"It's amazing how quick you get sick of playing the Sims normally and you decide to play with it" (Kaye)

"I'll occasionally get really bored like when I feel there's almost like a saturation point, and when I reach that saturation point I generally sort of immerse myself in other media for a while and then after a while, maybe a day or two, games become fun again. They definitely seem to have a saturation point." (Matt)

"When I start a game I'm generally just there for fun … but after a while if it starts getting a little bit monotonous then you start looking for ways to break out of the monotony … [it] starts off as 'Oh look at this. This is sort of bugging a bit. I can kill this monster over and over again.' You wait for a bit and it respawns and it's got really good XP or it's really good gold or something

	like that. So it starts off relatively innocently but then you get further down the rabbit hole." (Matt)
Mastery	"Yeah it's kind of like that point beyond mastery where you've got the best mechanics. You've got out of the game kind of what was intended to be got from that game, and you try and extend that with your own set of secondary rules." (Ethan) "When achievements came around, one of my main beefs with them was that people that knew a game back to front would think up their own ways to make the game enjoyable for them and that was where the 3 heart challenge and I guess Nuzlocke probably been around quite a while and that was born out of such an idea as well." (Lachlan)
Prolong Play	"When we tried to kill each other [(in-game)] and dodge each other's rocket launchers in the level-select area … we just started shooting at each other. So we continued using the game to play that little game for a bit of time afterward" (Dan) "But we thought it was fun and we made that the mission. We made that the game. And I wouldn't say it was necessarily more fun it just extended it. It just made it that fun last longer. We didn't need to buy a new game or go buy a new console or have extra maps or levels or anything we could just deal with what we had and we just made something else up. We just made it up. That's probably one of the big ones for us because it took a lot of time and it got into this new challenge that we made for ourselves." (Garret) "So we played it in the sense of if you tried the competitive play, which was a big part of that game – it was so much of a story or a mission – where you were a human you had the actual enemies

were like real people, players playing, is rather than actually trying to kill them we played a game of 'How long could you hide and live for.' So we'd not shoot the enemies. We'd not try and kill them. My dad and I would try and beat each other. We'd have a stopwatch and the game would start and we'd hide. And we would hide and we would wait and not do anything and the enemies were just running around trying to find you. 15 minutes would pass and they haven't found you and we were just trying to see who could stay alive the longest. It was not to do with how many kills you got or finishing a mission or anything like that. It was literally who could live the longest, which was a bit different. It sounds a bit boring. But after we'd played this game for 6 or 8 months and got bored, that was the game we played." (Garret)

"We basically were pretending that we'd never been given any weapons. And that's the rule of the game. You don't have a weapon. You never had one. You only have your fists, and somehow you have to survive against all odds with just your fists." (Garret)

"[Discussing the 3 heart challenge:] Okay. So every time you complete a boss in Zelda well every time you defeat a boss in Zelda, the exit stage will there and right next to the exit will be a heart container, so take the heart container and you get one more heart. So you're able to take more damage, you have more health. Well these people have devised a challenge where they never pick up the heart after they defeat a boss and they never find additional heart containers out in the world. That's half the fun of a Zelda game is all these secrets hidden everywhere and I guess it's a hardcore thing. I know the bosses well enough. I know the game world well enough that I don't need all this extra

health to offset the mistakes I may make and that's the challenge they impose on themselves." (Lachlan)

"[W]e're always looking at ways to try and do more with games in the sense of taking the rules of the game and trying to push them as much as possible, just as we explore game worlds, we're trying to explore the boundaries of abilities as such." (Isaac)

"[W]hen I was younger, you usually only got a new game for your birthday or Christmas or maybe a very special occasion and I remember some of the presents and also some of the ones I wanted weren't the best games and you were stuck with them so you had to make your own fun." (Lachlan)

"Size is one variable. If it's a large game that takes a long time to complete, there is probably going to be a period of time between plays or completions that's quite extended." (Amy)

"Actually, one of my habits with Prototype. I love the first scene in Prototype where you have all the powers/mutations, and you just go around killing people. It's really cool. Prototype is such a long game, that maxing all of those things is really hard. So I like to go back and replay the first scene where I have all the cool little things and just muck around." (Brooke)

"I'll more happily muck around in a game that I know. Like I've got heaps of games in my steam library that I've never played, but I'd still probably be more inclined to open Fallout now rather than click on something I've never bothered installing." (Matt)

"I look for things that I probably shouldn't do and do them to a point of excess. For example, if I notice that a game designed has a signature quest NPC in an area that players have to go

	through at some point to be able to complete the quest, and obviously you can just sort of stand there and kill them if you're at a higher level in most MMOs. So there's stuff like that." (Matt)

4.2.4 Social

The social aspects and benefits of play have been well documented in the literature, providing players with opportunities to explore social constructs, develop communication skills, and ultimately engage with others (Danger, 2013; Fine, 2002; Parten, 1933; Vygotsky, 1978). Five themes were identified as part of the social characteristic: *community*, *competition*, *dispute resolution*, *interactions*, and *observation*. The theme of community considers the role that external sources, friends and other players have in influencing freeplay; specifically, the innovation of these ideas, and dissemination of these activities between players. The second theme, competition, describes the forms of freeplay that emerge between players when competitive elements are introduced into the game environment. These may manifest as player handicaps through to social negotiation of challenges and rules. Dispute resolution, the third theme, examines the innovative uses players have for using videogames as a means for overcoming disputes inside and outside of the videogame. Interactions pertain to the diverse types of freeplay that take place as a result of the actions of two or more players. Lastly, observation considers how players pick up inspiration for freeplay activities through watching other players at play. Table 5 contains a sample of supporting quotes for each of the themes identified as part of the social characteristic.

Table 5

Social: Themes and supporting quotes

Theme	Supporting Quotes
Community	"[Y]ou're not going to let that feeling die just yet. You find videos or instructions, and decide that you are going to explore now." (Amy) "[W]e will decide that we will play 'team medic' [(all support characters in League of Legends)] which in a normal game just would never work. But we decide to play it and see how that goes, and see who gets the best score and the best combination." (Amy) "With Grand Theft Auto, I like to do the kind of things they do on Achievement Hunter." (Brooke) "YouTube is the big thing. There are some people on YouTube I follow religiously, they are always doing different Nuzlocke variants… all these crazy challenge modes that they've created or someone else has created and they like the look of." (Charlie) "Community based rules like you must have a long range character and a healer character on the bottom road and you must have this character on the mid road and you must have whatever character …" (Lachlan) "And I've just done other weird stuff and I think MMOs foster this stuff really well where you get together with people dynamically and just start doing stupid stuff." (Matt)

	“We made a maze once [in Minecraft] where you had to work cooperatively to get through the maze, but in the end only one person could ever finish it.” (Amy)
	“We were playing [Lara Croft and the Temple of Osiris] and we accidentally killed each other with the rocket launchers and grenade launchers, and we thought it was weird ... We played around with it, and we thought it was really fun.” (Dan)
	“[P]eople started to make custom game modes where they would play hide and seek in [League of Legends], so there would be a 5-vs-2 team, where the 5 people would need to hide and they cannot attack the enemy player. They just need to run, but they can use their abilities to run away and stuff like that but they cannot attack or kill the enemy so the enemy team has to kill the ones who are hiding and it would be considered as finding them.” (Dan)
	“Sometimes especially in multiplayer contexts for example in Chivalry where you're playing with a group of people you're quite comfortable with, you might say to everyone ‘Oh let’s just use our fists for this round’. So it’s kind of a secondary decision that the group has made sort of thing.” (Ethan)
Competition	“My friends and I, we would sometimes do drinking games with videogames - especially with League of Legends.” (Dan)
	“[W]e would setup separate challenges for ourselves within the game world. Instead of playing through a level, it would be like the first person to get to the top, or the person that collected the most things, or killed the most things.” (Amy)

	"[A]fter playing a few rounds [of Super Smash Bros] normally, we had weird rules like the person sitting to your left had to play as this character … So you'd pick all the worst characters that you could to try and give them a handicap … we had a round that was 3 Jigglypuffs, Ice Climbers and Peach and it's just everyone's horrible at the game, but you're trying to be the least horrible with a bad character." (Kaye)
	"It became a 'fine, next time I am going to do it better' and of course someone plays dirty and then we setup rules like 'you can't push the person off', that's just not fair." (Amy)
Dispute Resolution	"If we're talking about big impacts, socially, when Tekken 4 or 5 came out, I gained a completely new friendship with Zane, because every time we had an argument we'd go play the game." (Flynn)
	"I suppose that could stretch to settling arguments over Street Fighter games." (Amy)
Interactions	"I feel like a lot of the times when you break the game to enjoy it, it's more of a connection with someone you're playing with, so stuff like challenging each other to doing something that you think they can't do …" (Flynn)
	"You can talk about it. You can share tips. Even just go 'Holy crap. Did you know you could do this?'" (Garret)
	"In Minecraft, we made a maze once where you had to work cooperatively to get through the maze, but in the end only one person could ever finish it." (Amy)

“So we were like, why don't we explore something new today or something we haven't tried and see who can win this, and see who is better. It was unexplored territory! It was more likely the idea of seeing who was more naturally gifted at driving in reverse of something like that.” (Dan)

“The jumping on each other’s heads was a little bit of a fluke. It was my dad and he was just jumping around checking out this room and I was just looking at the lights seeing if I could shoot them or something and he was like ‘Hold still for a sec I want to try this.’ And he just jumped on my head and at that point I didn’t know. I couldn’t see it and he was like ‘Look at my screen.’ And I realised he was on my head that was the part where we were laughing and I thought ‘What happens if I move?’ so I moved and he moved with me, so he could just stay still. And okay what happens if you turn around, so he could turn around 360 degrees. So you could shoot and throw grenades on my head, and I could walk. We would split the functions of what you do. Normally you do the moving and the shooting, but if I just do the moving and you do the shooting, or at least if I can just contribute to some of the shooting from my level, it was limiting my dad’s ability to play the game. You can’t just hide and do whatever, he had to stay grounded with me as we walked around, and of course that meant that he’s reliant on where I walk. But that was fun. That’s what was fun and interesting at that point. So it’d be kind of organic and we’d be let’s just try this. So we’d just be jumping around and be ‘What happens if we did this thing?’ What if we threw the canister into that little jet propulsion thing and watch it float or such things.” (Garret)

“Or cause you’re playing with friends you’re just sort of mucking around, so we’d try and kill people in humiliating ways with

	things that you probably shouldn't kill them with. Like for instance you'd be trying to kill someone by running then over with a jeep, but you wouldn't just run over them, you'd have to get out of the jeep and coast it into them. You'd line them up from ages away and you'd be driving along as fast as you could and you'd get out and just watch the jeep going and hit them." (Hunter) "[G]riefing. So we'll go into a game with an intent that, my group of friends and I, not setting out to play the objective but to rather humiliate or to annoy other players, enemies or independents in a game … The goal is to just ruin that person's game eventually. Humiliate them, annoy them. So in an MMO you might take higher level characters to a lower level place and you don't actually want any of these people, you're just making their life hard and that's the fun of it" (Hunter) "I look for things that I probably shouldn't do and do them to a point of excess. For example if I notice that a game designed has a signature quest NPC in an area that players have to go through at some point to be able to complete the quest, and obviously you can just sort of stand there and kill them if you're at a higher level in most MMOs. So there's stuff like that. Then I guess in games like Minecraft you can set up explosives right next to a person's house so they come and open their door and there whole house explodes. There's definitely good ways to be mean to somebody in a game if you're happy to exploit the rules." (Matt)
Observation	"[I] experienced it first hand, people putting explosives on vehicles [in game]." (Hunter)

	“One of the things I did was walk backwards across one of the continents, one of the World of Warcraft islands. Because other people were doing it and I just joined in I guess.” (Matt)

4.2.5 Spontaneous

Spontaneity is not a concept found in general definitions of play, but rather describes possible forms of play that can vary between linear and controlled (ludus) to spontaneous and free (paidia) (Caillois, 1961). The spontaneous characteristic revealed three themes: *engagement*, *discovery*, and *variation*. The theme of discovery relates to the spontaneous realisation of freeplay possibility within a videogame. The second theme, engagement, reflects how players engage in these activities in the context of spontaneous freeplay. Lastly, variation in this context considers the types of activities and forms of freeplay that emerge when players alter their approach and the types of activities they engage in. Table 6 contains a sample of supporting quotes for each of the themes identified as part of the spontaneous characteristic.

Table 6

Spontaneous: Themes and supporting quotes

Theme	Supporting Quotes
Discovery	“We were playing it and then we accidentally killed each other with the rocket launchers and grenade launchers or something like that, and we thought it was weird because "what, we can kill each other now?" We played around with it, and we thought it was really fun. I thought it was like it was something that passed through their minds when developing the games. They probably forgot to put in a little code that explosives don't do damage or something like that. I don't know. I felt like it was something taboo, and it was something I could take advantage of…” (Dan)

	"The jumping on each other's heads was a little bit of a fluke. It was my dad and he was just jumping around checking out this room and I was just looking at the lights seeing if I could shoot them or something and he was like 'Hold still for a sec I want to try this.' And he just jumped on my head and at that point I didn't know. I couldn't see it and he was like 'Look at my screen.' And I realised he was on my head that was the part where we were laughing and I thought 'What happens if I move?' so I moved and he moved with me, so he could just stay still. And okay what happens if you turn around, so he could turn around 360 degrees. So you could shoot and throw grenades on my head, and I could walk. We would split the functions of what you do. Normally you do the moving and the shooting, but if I just do the moving and you do the shooting, or at least if I can just contribute to some of the shooting from my level, it was limiting my dad's ability to play the game. You can't just hide and do whatever, he had to stay grounded with me as we walked around, and of course that meant that he's reliant on where I walk. But that was fun. That's what was fun and interesting at that point. So it'd be kind of organic and we'd be let's just try this. So we'd just be jumping around and be 'What happens if we did this thing?' What if we threw the canister into that little jet propulsion thing and watch it float or such things." (Garret)
Engagement	"Sometimes I teleport from map to map to map, just doing random menial things like killing five different types of fish for no good reason." (Amy) "First person shooters for me are really good … because I will go off and do random things, and derp [(fool)] around over there,

	and I will look at a box and walk away, and see if I can go backwards just to see if I can." (Amy)
	"But also spur of the moment, I will see it happen and be like 'Oh, I'm going to give that a try'." (Brooke)
	"I feel like you can see it in other games, but most of the time it's just something done in the spur of the moment." (Dan)
	"That's when you get stuff like WiiSports when it first came out – it was amazing – I can move my characters' arms and you just make them do stupid things like wave and slap themselves in the face and along those lines." (Flynn)
	"It was pretty organic. We would not even tell the other person we were playing that game. We could be playing the canister game and the other person doesn't even know that we are and I'm like 'Cool dad I've got a canister next to you and I'm now gonna kill you.'" (Garret)
	"I spend a lot of time just sort of walking around doing random shit in games …" (Isaac)
	"And there's always a joy in that and then sometimes after you're done exploring you think 'I'm gonna attack that guy'." (Lachlan)
Variation	"Oh, in GTA! Every now and then - I know it's really insane - but I like to follow the road rules! ... I just drive around and stop at the red lights. Then I get bored and start hitting people." (Brooke)
	"[W]here we tried to kill each other and dodge each other's rocket launchers in the level-select area (where you can choose which level to go to), and we just started shooting at each other.

So we continued using the game to play that little game for a bit of time afterward" (Dan)

"The other one, by far the most stressful one, but we still did it was trying to run through the entire map without killing anyone and having every one chase you. It wasn't always possible in that one, cause you couldn't always get through. But basically you were just capturing everyone and they were all following you like a massive horde." (Garret)

"It's like a quirky element to the game. And it makes it feel like and then someone else might suggest something for the next round and it kind of feels like you're adding to the game as well." (Kaye)

4.2.6 Structure

The characteristic of structure is primarily concerned with the components of gameplay that are integral to the videogame, that provide the basis for the virtual play space, as well as the narrative. Five themes were identified as part of the structure characteristic: *achievements*, *control*, *freedom*, *objectives*, and *variation*. The theme of achievements considers the predefined achievements, a designed feature of many videogames, and the role they play in players engaging in freeplay. The second theme, control, demonstrates how in some instances players find enjoyment in following the rules set out by the game, but are otherwise not vital to the game. Such as following the road rules in *Grand Theft Auto*. Freedom identifies the instances in videogames where players are autonomy over the game and world. Objectives pertains to how players engage with or disregard gameplay objectives as stated by the game, and highlights instances where players seek objectives that are otherwise unstated in the game. Lastly, variation considers how players can alter their gameplay from that intended by the game in order to prolong their gameplay

longevity. Table 7 contains a sample of supporting quotes for each of the themes identified as part of the structure characteristic.

Table 7

Structure: Themes and supporting quotes

Theme	Supporting Quotes
Achievements	“There is this idea that there is no sense of discovery anymore. One of the fixes that developers have done is that they hide the names of the achievements until they are created, but the idea that this is linked to an achievement well, I don’t know cause a developer can’t know everything that a player is going to do with their game cause that’s kind of what a play tester is. A good play tester is someone who wants to break the game or go outside the boundaries and see what there is to discover.” (Lachlan) “The 3 heart challenge in Zelda games ... I do like that idea that this might be a roundabout way of talking about it but when achievements came around it was one of my main beefs with them. That one of the joys of games was that people that knew a game back to front would think up their own ways to make the game enjoyable for them and that was where the 3 heart challenge and I guess Nuzlocke probably been around quite a while and that was born out of such an idea as well.” (Lachlan) "Team Fortress 2 has [achievements] for ‘hadoukening’ a player to death - which is a taunt that the pyro class can use - and I used to do that all the time but as soon as they added an achievement to that, suddenly it was a thing that you did to get an achievement and that made it less interesting to me” (Matt) “There’s stuff like achievements that prolongs my game play as well, but I tend not to get achievements because I find that’s sort

	of somebody else's idea of fun and I try and set my own achievements I guess." (Matt)
Control	"Oh, in Grand Theft Auto! Every now and then - I know its really insane - but I like to follow the road rules!" (Brooke)
	"I just do it constantly to be perfectly honest. I almost dislike playing games as they're meant to be played. I enjoy the narrative, but I'll always look for a way to try and exploit the game's mechanics, or try and find a way to muck around … I'm just doing that crap all the time in games." (Matt)
Freedom	"By no means is it a slight on the game itself, in fact I find that it would be a massive positive. For that particular game because that means they are giving players freedom enough to play things the way they want to and kind of form relationships with other people in different ways. The game itself is very fun and it's enjoyable. I think for us, the gamer in general, we always try and find different ways to do things" (Amy)
	"There are definitely ways of altering how you play, it's just a lot more difficult when you're confined." (Amy)
	"It's more difficult when you're confined and constricted into the way the developers are expecting you to play the game" (Amy)
	"I like being able to do anything, making up your own stuff. Like Achievement Hunter. Grand Theft Auto is a huge world, and you can pretty much do anything you want." (Brooke)
	"The one that instantly just is yelling out to me is Minecraft because when I first started playing Minecraft, it didn't add any end game points with the stuff like Elder Dragon and things like

	that so it was very much you get into the game, you play the game and you try and do whatever you want to do. So I remember a lot of the early Minecraft players were a bit confused about what to do so the big thing everyone tried to do online was create rollercoasters for fun." (Matt)
Objectives	"This is not me doing the quests or following the narrative, it's me exploring every tiny nook and cranny. It reinvigorates your love for the game, which means now that you're tired of exploring or doing those other things, you can go back to what the game actually intends you to do. I suppose it's about keeping the game alive." (Amy) "People started to make custom game modes where they would play hide and seek in League of Legends, so there would be a 5-vs-2 team, where the 5 people would need to hide and they cannot attack the enemy player. They just need to run, but they can use their abilities to run away and stuff like that but they cannot attack or kill the enemy so what the enemy has to do (the two players), they can kill the ones who are hiding and it would be considered as finding them." (Dan) "The other one, by far the most stressful one, but we still did it was trying to run through the entire map without killing anyone and having every one chase you. It wasn't always possible in that one, cause you couldn't always get through. But basically you were just capturing everyone and they were all following you like a massive horde." (Garret) "I'd really just heard about it through friends. It could have just been in a particularly friendly lobby and somebody was like 'Have you guys heard about Michael Myers?' and then it was like 'No.' Well I'll tell you and then we all migrated over to a custom game

	and it just sort of grew from that, cause I know that between the time when I first heard about it and when I stopped playing Call of Duty, it sort of became, I had this group of friends and that's all we would do. We wouldn't bother with any other game mode. It would be 'Do you want to play some Michael Myers? Sure that'd be great.' So you'd go and do that for a bit, then wander off and do something else for a bit." (Joel)
	"The developers make it clear to you how they would like you to play a game, but of course the user or the player is never gonna follow everything. They'll find their own way." (Hunter)
	"Games that have physics really loan themselves to doing stupid stuff because what you can do in a game like Mario Bros is all pretty well defined but you, but when the environment is a little bit more open you start being able to make more choices and you start playing and experimenting." (Matt)
Variation	"You can play a normal arena game, but you can customise it so you can become invisible, heavier, lighter, take more damage, one hit/one-KO, slower, and that kind of stuff. We would use those things to make it more fun, because we played through it normally and we got bored of that, or we wanted to spend some time together." (Dan)
	"My brother and I, at one point, decided to try racing backwards." (Dan)
	"First person shooters for me are really good … because I will go off and do random things, and derp [(fool)] around over there, and I will look at a box and walk away, and see if I can go backwards just to see if I can." (Amy)

	"But we thought it was fun and we made that the mission, we made that the game. And I wouldn't say it was necessarily more fun it just extended it … We didn't need to buy a new game or go buy a new console or have extra maps or levels or anything we could just deal with what we had and we just made something else up." (Garret)

4.2.7 Discretion

Discretion participation is a key concept of play (Cailois, 1961; Huizinga, 1955), and its application to freeplay in this instance is no different. The final characteristic, discretion, was comprised of two themes as identified through IPA: *gameplay*, and *optional play*. The first theme of gameplay relates to how players voluntarily engage in some selected actions of their gameplay, and how they engage in all forms of freeplay voluntarily. The second theme, optional, reflects the activities, challenges and gameplay that they engage in freely. This also includes instances where players gain an otherwise unfair advantage over the game. Table 8 contains a sample of supporting quotes for each of the themes identified as part of the discretion characteristic.

Table 8

Discretion: Themes and supporting quotes

Theme	Supporting Quotes
Gameplay	"We were playing it and then we accidentally killed each other with the rocket launchers and grenade launchers or something like that, and we thought it was weird because "what, we can kill each other now?" We played around with it, and we thought it was really fun. I thought it was like it was something that passed through their minds when developing the games. They probably

	forgot to put in a little code that explosives don't do damage or something like that. I don't know. I felt like it was something taboo, and it was something I could take advantage of" (Dan) "[P]eople started to make custom game modes where they would play hide and seek in it, so there would be a 5-vs-2 team, where the 5 people would need to hide and they cannot attack the enemy player. They just need to run, but they can use their abilities to run away and stuff like that but they cannot attack or kill the enemy so what the enemy has to do (the two players), they can kill the ones who are hiding and it would be considered as finding them." (Dan) "The developers make it clear to you how they would like you to play a game, but of course the user or the player is never gonna follow everything. They'll find their own way." (Hunter) "Other than that, doing the same thing but putting explosives all over it and just ramming it into vehicles and that's actually less. I feel like the developers intend that. The C4Jeep was always a strategy in Battlefield." (Hunter)
Optional	"And there's always a joy in that and then sometimes after you're done exploring you think 'I'm gonna attack that guy." (Lachlan) "[J]ust wanted to see, I was curious and I thought I would give it a go" (Brooke) "So we were like, why don't we explore something new today or something we haven't tried and see who can win this, and see who is better. It was unexplored territory! It was more likely the

idea of seeing who was more naturally gifted at driving in reverse of something like that." (Dan)

"[S]ometimes in Grand Theft Auto we might decide to do a race in reverse… so you drive in reverse." (Ethan)

"I think the main thing is after you've had extensive experience with a game, maybe you've reached the point where you're comfortable with its mechanics and understand its ability and you're just trying to get something extra out of it. You're so familiar with the rules you're ready to change a little … Yeah it's kind of like that point beyond mastery where you've got the best mechanics. You've got out of the game kind of what was intended to be got from that game, and you try and extend that with your own set of secondary rules." (Ethan)

"But we thought it was fun and we made that the mission. We made that the game. And I wouldn't say it was necessarily more fun it just extended it. It just made it that fun last longer. We didn't need to buy a new game or go buy a new console or have extra maps or levels or anything we could just deal with what we had and we just made something else up. We just made it up. That's probably one of the big ones for us because it took a lot of time and it got into this new challenge that we made for ourselves." (Garret)

"It's something players have discovered they can do so they're going to go ahead and do it. Which I think is pretty cool." (Hunter)

"[W]e're always looking at ways to try and do more with games in the sense of taking the rules of the game and trying to push them

as much as possible, just as we explore game worlds, we're trying to explore the boundaries of abilities as such." (Isaac)

"But also spur of the moment, I will see it happen and be like 'Oh, I'm going to give that a try'." (Brooke)

"[Discussing the 3 heart challenge:] Okay. So every time you complete a boss in Zelda well every time you defeat a boss in Zelda, the exit stage will there and right next to the exit will be a heart container, so take the heart container and you get one more heart. So you're able to take more damage, you have more health. Well these people have devised a challenge where they never pick up the heart after they defeat a boss and they never find additional heart containers out in the world. That's half the fun of a Zelda game is all these secrets hidden everywhere and I guess it's a hardcore thing. I know the bosses well enough. I know the game world well enough that I don't need all this extra health to offset the mistakes I may make and that's the challenge they impose on themselves." (Lachlan)

"Going back to Dark Souls, [sometimes we play] that game naked. [See previous author note regarding naked play]" (Lachlan)

"Then there were game modes like Mike Myers which was hide and seek infection type things, which weren't actual game modes but you always knew that you could get into a lobby if you just went into the custom games." (Isaac)

"The best example that I could think of would definitely be Call of Duty. In which you go into a custom game with up to 10 people, which is two full teams of five and as far as I can tell it's where the Zombie game mode came from except we called it Michael

Myers. I don't know why. I don't even know who that is, but that was just what the game mode was called and one person had a knife. They were on a team by themselves. Everyone else was on the other team. They weren't allowed to shoot or in any way defend themselves. All they could do was run and hide. And then when the person with the knife knifed them, all they could use was the knife. But if they knifed someone on the other team they would swap and it was that kind of BullRush build up, as the infected killed them, they gained in numbers until there was the one survivor left. That last survivor would then become the infected. Everyone else became runners … I'd really just heard about it through friends. It could have just been in a particularly friendly lobby and somebody was like 'Have you guys heard about Michael Myers?' and then it was like 'No.' Well I'll tell you and then we all migrated over to a custom game and it just sort of grew from that, cause I know that between the time when I first heard about it and when I stopped playing Call of Duty, it sort of became, I had this group of friends and that's all we would do. We wouldn't bother with any other game mode. It would be 'Do you want to play some Michael Myers? Sure that'd be great.' So you'd go and do that for a bit, then wander off and do something else for a bit." (Joel)

"Actually, one of my habits with Prototype. I love the first scene in Prototype where you have all the powers/mutations, and you just go around killing people. It's really cool. Prototype is such a long game, that maxing all of those things is really hard. So I like to go back and replay the first scene where I have all the cool little things and just muck around." (Brooke)

> “One of the things I did was walk backwards across one of the continents, in World of Warcraft… Because other people were doing it and I just joined in I guess.” (Matt)

4.3 Summary

This chapter has presented a selection of key quotes that form the findings from this research. Thirteen participants were selected using purposive sampling techniques, and interviewed. Interviews were transcribed and then analysed using interpretive phenomenological analysis and organised according to the framework method. From the literature review, seven key characteristics of freeplay were identified and used to guide the identification of themes from throughout the interview transcripts. These key themes in respect to the identified characteristics will be further discussed in the following chapter.

Chapter 5: Discussion

The overarching characteristics used in this study were derived from existing literature in the domain of play and freeplay and then explicated through an interpretive phenomenological analysis of the interviews to develop an understanding of freeplay in the context of videogames. These key characteristics were: creativity, exploration, immersion, social, spontaneous, structure, and discretion. A table detailing the frequency of each emerging theme in participant interviews is included in Appendix C. These key characteristics and themes are illustrated in Figure 3.

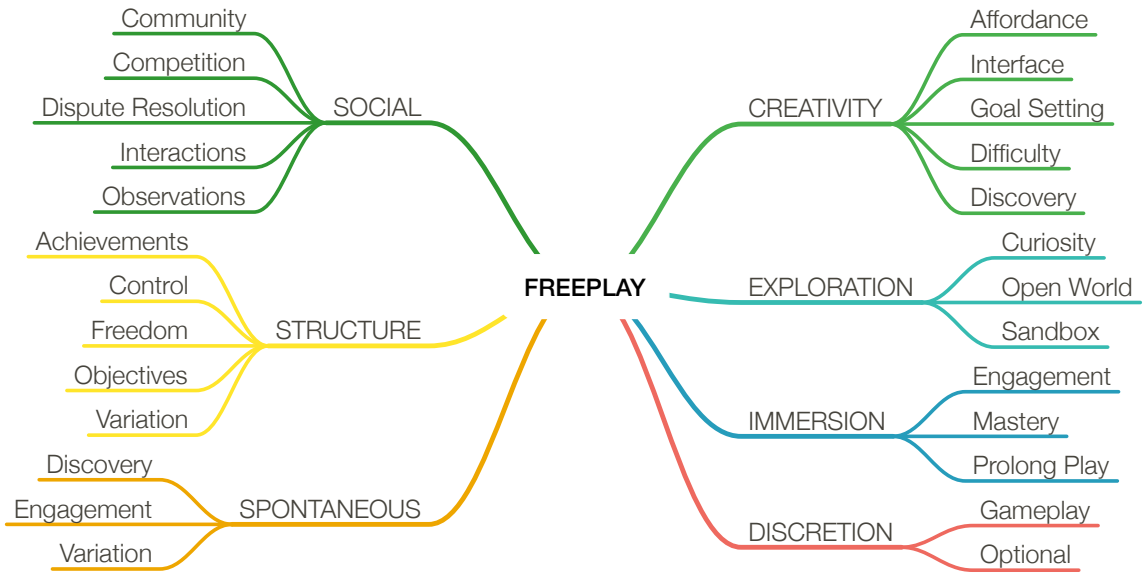

Figure 3. Key characteristics and themes. Note: themes and characteristics are displayed in no particular order.

The aim of the research was to answer the questions:

RQ_1 What is freeplay in videogames?

RQ_2 What are the characteristics of freeplay in videogames?

Through an exploration of the participants' experiences with freeplay, the answers to these questions were revealed. It became clear that freeplay inherits the characteristics of both games and play and is found throughout a multitude of play experiences by participants of diverse gaming backgrounds. Hence freeplay can be defined by examining the characteristics extracted in this study.

5.1 Creativity

Creativity is inherent in all forms of play and reflects the very nature of freeplay, where players become autonomous to the game and define their own actions, activities, and fun. Once a player has an understanding of the tools and materials they are working with inside of a game they can begin to create new experiences and forms of play. This can be likened to how a chef understands the nuances of ingredients and uses this knowledge to invent new and exciting meals. Fundamental to all games, players are given access to a specific combination of mechanics, objects and tools that formulate the *game*. Players can exercise mastery of skill to define new challenges for themselves using those same elements. Players creating custom rules and goals, or inventing new games, is indicative of creativity through play as discussed by Vygotsky (1978). These acts of creativity were revealed throughout the study in what constitutes five themes: *affordance*, *interface*, *goal setting*, *difficulty*, and *discovery*.

5.1.1 Affordance

The theme of affordance relates to instances where participants used the fundamental components, artefacts, and mechanics of a videogame to devise new and inventive gameplay, make art, and find novel applications and uses for the videogame. Affordance addresses how games afford a range of play due to the very nature of the game, its components and mechanics. It also considered how participants create art in videogames, but also develop customised gameplay. It is important to note that many of the participant examples presented throughout this study are only possible as a result of the game affording these behaviours in some capacity. By the very nature of all videogames, there are limitations as to what can

be accomplished in each game. For example, there are activities in *Minecraft* that cannot be achieved in Tetris. With respect to freeplay, players are enabled to make up their own rules and goals.

In many forms of creativity, there has to be background knowledge and experience which shapes an individual's creative pursuits and interests. In this study, there were two key concepts that particularly highlighted the theme of affordance. The first was revealed in both Flynn and Isaac's use of *Minecraft* as a tool to create art. They described how they used the building mechanics in the game to recreate popular culture pixel art inside of the game world, creating large-scale 2D representations of Mario and other popular game characters and icons. This was a way for players to customise the space and make it their own. This is not the first instance in which *Minecraft* has been used for creative expression, as its affordance of block manipulation and building mechanics has been demonstrated by other players. For example, staff and students of Bond University have used *Minecraft* to recreate the Gold Coast campus (Brand et al, 2014; Brand & Kinash, 2013), seen in Figure 4.

Figure 4. Bond University (Gold Coast Campus) reconstructed in Minecraft. See: https://www.youtube.com/watch?v=2XMZs3sl-uw.

Others, such as that featured in Figure 5: a YouTube video by user *snitty72* (https://www.youtube.com/watch?v=N06BXm6m1g8), recreated many works of pixel art whilst playing with friends as early as July, 2011. These acts are just a selection of defining examples of affordance; the game provided a set of tools and circumstances that made certain behaviours possible. Further, Garret explained how he used barrels in *Halo* to create a game similar to *Tetris* by stacking the barrels on top of each other. In this case it is the physics system in *Halo* that affords the creative behaviour.

Figure 5. A selection of pixel art created by a group of Minecraft users. See: *https://www.youtube.com/watch?v=N06BXm6m1g8*

Creativity through affordance can also be observed on YouTube and Twitch. One such example featured in the *Things To Do In* clip, shown in Figure 6, demonstrates creative affordance in freeplay took place in *Grand Theft Auto V* (GTA V). A group of players from the popular Rooster Teeth YouTube channel, as part of the Things to Do In series, used an airport runway as a field for a custom game of bowling inside of *Grand Theft Auto V*. Canisters, drums, fire extinguishers and other objects were arranged at one end of the runway, whilst a ramp and car were placed at the opposite end. One player would then drive the car down the runway at full speed,

over the ramp and launching the car into the air. The player would then jump from the car, and watch as the car hurtled toward its target(s).

Figure 6. Things to Do In GTA V - Bowling: Players launch cars at canisters as a form of freeplay. See: *https://www.youtube.com/watch?v=nCGZKdiDb-g*

This activity was not a core component of the game, but the players utilised the affordances of the physics system, game objects and environment to create their own entertainment and competition through freeplay. In essence, these players are using a car as a bowling ball, demonstrating a form Koestler's (1964) bisociation where players combine the rules of popular children's games in new (and virtual) environments.

5.1.2 Interface

The interface theme reflects the ways in which players are able to assert control over a videogame, and find innovative ways of interacting with the videogame via a controller or other input device, and in some instances output devices such as screens and other displays. These include peripheral devices such as controllers, keyboards, gamepads, screens, and speakers. This creativity, although not internal

to the game, presents a number of challenges for players which in turn impacts the internal behaviours and play possibilities.

Many of the examples of creative use of the interface, identified throughout this study, came from Kaye, who on multiple occasions set additional gameplay rules that governed how other players would interact with the game in a multiplayer setting. Some of these instances included using gamepads and controllers with other parts of the body (such as the chin, elbows, and feet). Coinciding with the theme of affordance, affordance theory (Gibson, 1977) and player agency (Calleja, 2011; King & Krzywinska, 2006; Tanenbaum & Tanenbaum, 2009;), this form of freeplay provides players with an opportunity to influence their gameplay; not exclusively making the game more difficult, but present alternative challenges or otherwise alter the game. Of interest, the instances identified by Kaye don't necessarily make the game easier for the player. For example, removing colour from the output device may increase the difficulty of a videogame. In the case of the game franchise *Portal* (Valve, 2007-2011), where the player relies on coloured portals to solve puzzles, the removal of this design-based mechanic makes the game far more difficult to play. The non-traditional use of tools and artefacts is the type of divergent thinking and creativity defined by Plucker and Renzulli (1999), and Gilhooly, Fioratou, Anthony and Wynn (2007) in which they discuss how multiple inputs (tools) can be used to generate many possible outcomes, it is then up to the user to select the option deemed to have the best fit for the purpose at hand.

5.1.3 Goal Setting

Goal setting, considers the game modes, rules, and challenges that players devise and implement into their gameplay, and is a highly creative process. This is where players exhibit mastery of the elements of a game environment and invent new forms of gameplay. The goals setting behaviours of the participants reflect the autotelic nature of freeplay, in that these activities are often engaged in purely for the sake of doing them (Schmid, 2011).

One example of this creative freeplay where players define their own goals came from Dan. Whilst playing *Lara Croft and the Temple of Osiris* (Square Enix, 2014) with a friend, the participant discovered that it was possible to damage the comrades' avatar using explosive weaponry even though PVP settings were disabled. The two players then engaged in their own fighting competition which ignored all other objectives of the game. This became an activity that prolonged their enjoyment, as afforded by the game elements.

Players' defining their own gameplay can be seen to be exploring the highest form of player agency (Tanenbaum & Tanenbaum, 2009). Although not inherently given to the player, agency allows players to take utmost power over the game and their own play. One of the most fundamental definitions of play includes references to the necessity of goals and rules within that play (Caillois, 1968; Huizinga, 1956; Salen & Zimmerman, 2004; Vygotsky, 1978). Rules are integral components to the game that define the boundaries. Some rules may be exposed to players, whilst others are discovered through exploration. In most examples identified in this study, participants freeplayed by creating new games within pre-existing games, or game modes that build upon the pre-established rules outlined by the game. When participants defined their own games, new rules were needed to aid with drawing the distinction between the pre-existing game and the new game being freeplayed. Freeplay then is the ability for a player to define new goals and rules or create entirely new games.

Another example of goal setting identified in this study saw participants that played *League of Legends* take one particular character (in this case, Teemo) and create a game of hide and seek using the attributes assigned to the character in combination with a particular set of game settings and character equipment. Contrary to the typical gameplay structure, teams are uneven with one person being assigned to the first team, and the remaining players on the other. The player designated as the hider would then hide in the environment, whilst the seekers would pursue them (as per traditional rules of hide and seek). The game would end once the hiding player (Teemo) was defeated a certain number of times, usually five. During these games, the primary objectives of the game (capturing the opposing team's base) was

ignored. Mechanics and rules similar to these can be found in other multiplayer games, providing they are afforded by the game. This activity can be classified as a form of bisociation (Koestler, 1964).

This type of goal setting behavior can also be observed elsewhere. For example, a player took sixteen attempts to drive over the outer metal construction of a bridge, rather than the main component of the bridge, in *Grand Theft Auto V* whilst on a motorbike, as seen in Figure 7. These types of videogame stunts are commonly highlighted in popular culture press (e.g. Kotaku and Dorkly).

Figure 7. A player takes sixteen attempts to jump over a bridge in Grand Theft Auto V. See: *https://www.youtube.com/watch?v=_Xo1k9pS1rY*

5.1.4 Difficulty

Difficulty refers to players determining their own challenges and attempting to alter the game to make the game easier or more challenging. Most instances revealed in this study referred to increased challenge, while others referred to finding a way to not necessarily cheat but make it easier for themselves.

Some participants (including Flynn and Matt) experimented with gameplay difficulty by driving backwards in racing games. In some instances, the vehicle would be turned around, and the race course would be completed as per normal whilst in reverse. In other cases, the track would be completed in reverse whilst the car goes backwards, or whilst the car is turned around and the player drives forward. The latter of these requires the game to not automatically reset the race after a certain amount of time has passed when the game detects that the player is going in the wrong direction. In the first case, the difficulty of the game is definitively increased, to the point where winning a race against AI competitors or other players playing under normal conditions would be near impossible. This race reversal appears to be more popular when two or more players compete to see who can reach the finish-line first or under the best time.

In some cases, participants would experiment with game difficulty by optionally choosing to play the game *naked,* a behaviour which sees players optionally removing armour and clothing from their avatars to increase vulnerability and in turn, difficulty. This makes the game much harder than the designers originally intended. Considering this from the perspective of affordance and player agency literature, players have the option to do and be completely unequipped if they so choose. When player armour or clothing is not a customisable component of play, this same behaviour can be replicated by changing weapon and equipment combinations or applying limitations to the number of bullets (for example) that can be used to take down an enemy.

One of the most prevalent examples of players demonstrating governance over their freeplay through the difficulty theme, is in the popular *Nuzlocke Challenge*. This was highlighted in many conversations with participants. The Nuzlocke Challenge describes a series of optional rules that are applied to the popular Pokémon franchise. The *Pokémon* franchise is very formulaic, with periodic releases following the same game structure with a slightly modified story and more diverse range of Pokémon available to players. As such, players choose to play gameplay variants such as the Nuzlocke Challenge in order to keep the game fresh and interesting. The most basic rules of the Nuzlocke Challenge change a number of core mechanics of

the game, without the need to physically alter the game. In regular gameplay, when a Pokémon faints it is unable to battle but can be revived at a Pokémon Centre. However, under Nuzlocke conditions, that Pokémon, when it faints, is considered dead. The fainted Pokémon is then released into the wild, or moved into storage where it cannot be used again. Furthermore, when a player *blacks out*, the game is considered over and the player must start again from the beginning. When a player enters a new area, the first encounter is their one and only chance at catching a Pokémon in that area. There are also many other rules that can be optionally applied to further increase the difficulty of the game.

5.1.5 Discovery

The core philosophy of the discovery theme sees players becoming aware of what is possible within a game world, through intrigue and enquiry, or external sources and represents spontaneous creativity across both the cognitive and emotional realms (Dietrich, 2004). Discovery, as with many of the themes of creativity discussed so far, is linked closely to affordance. Where affordances are those things present in the game but may not necessarily be acted upon, discovery is then the act of identifying those things present in the game and becoming aware of the possibilities outside of what the game has immediately presented.

During the later stages of playing *Lara Croft and the Temple of Osiris* co-op, Dan and a friend discovered that it was possible to injure the other player through an exploit in the explosion triggered by rocket and grenade launchers, even though PVP settings were disabled. Once this was discovered, a new game began to form – this new game ignored the other objectives of the game, and took on the form of a player-vs-player dual to see who could defeat the other player first. This was then an activity that was voluntarily participated in by both players over multiple play sessions.

5.2 Exploration

During the initial stages of gameplay as players are becoming familiar with the mechanics and environment, *exploration* is the key activity. Where the theme of discovery in the creativity theme is concerned with the revelation of the possibility of an activity, the theme of exploration places emphasis on the tangible elements of the game and how players hunt for freeplay opportunities throughout a game world. It is through this exploration of the game that players can uncover the narrative, reveal quests and activities, but also begin to understand what the game affords in terms of capabilities. Within the theme of exploration are the themes of: *curiosity*, *open world* and *sandbox*.

5.2.1 Curiosity

Curiosity refers to the inquisitive nature of players as they engage in exploratory behaviours, testing the physical limits of the game in addition to their own gameplay abilities while exploring the game world. Throughout all gameplay, players are looking to explore the boundaries and possibilities of a game, whilst also searching for ways to break the monotony of an otherwise repetitive game. Where the theme of discovery in the creativity theme focusses on the creation and realisation of a gameplay idea, the theme of curiosity describes examples of freeplay where players thoroughly explore a game world to test limits whilst exploring the seemingly tactile world. Much of the play literature from the domain of psychology draws parallels between curiosity and learning (Kuczaj, 1985; Pepler & Ross, 1981; Piaget, 1951), with Vygotsky (1978) suggesting that the imaginary situations and rules implemented by children at play can contribute to cognitive development. It is through this play that players explore new ideas and concepts, and as such satisfy their curiosity.

Curiosity was revealed as a component of freeplay in this study as the notion of doing something simply to see if it could be done. Dan highlighted the link between curiosity and exploration, drawing a parallel between the inquisitive nature of players at play, and a potential motive for engaging in freeplay activities. Similarly, Brooke

described an example of freeplay in the context of curiosity where she defined a goal in the game of *Grand Theft Auto V*, based on a non-essential and unrecognised activity which is inspired by curiosity, intrinsic motivation and personal accomplishment.

5.2.2 Open world

Larger worlds, or open worlds, afford the exploratory nature of play and freeplay, inspiring curiosity and discovery. Within the literature, open world games lend themselves towards non-linear storylines and emergent gameplay (Juul, 2011; Sweetser, 2008). Players are given agency over the world, the activities the player engages in, and the outcomes and effects various decisions have on the world itself (Calleja, 2008; King & Krzywinska, 2006). As such, players are inherently granted a metaphorical license to explore.

One of the key advantages of an open-world game is its vast size. With a larger map and area, comes many opportunities for freeplay. Amy raises an interesting argument with respect to freeplay and exploration, that the design of open world games very much relies on a player willingly exploring the world to unveil segments of the story, keeping the game moving forward. The question remains whether this is freeplay, or simply a designed feature of the game. For an activity to be defined as freeplay it is necessary to consider the activities players engage in whilst exploring an open world, the players' engagement with the game, and whether the game rewards the player for exploring the world in any significant way, such as an achievement or in-game prize. Matt discusses one form of freeplay where multiple players took advantage of the world size to walk across the game world backwards, citing a social element as both a reason for, and a source of, inspiration for engaging in the activity. The participant engaged in the activity because they saw other players doing it, and wanted to join in.

Bridging between the themes of curiosity and open worlds, the likelihood of players engaging in freeplay is not determined exclusively by the design of the world. As evidenced by this study, it can be suggested that open and closed worlds are

equally likely to feature instances of freeplay, as are games that are linear, non-linear, or emergent. Whether or not a game features freeplay is the product of gameplay affordances and player interest and desire to freeplay. A game of Tetris can have custom rules applied that might dictate how the blocks are stacked, or an on-rails game like *Killer7* (Capcom, 2005) can feature external rules or mechanics applied to actions that the player takes throughout the game; such as a drinking game. Rather, as observed through this research, an open-world and non-linear game simply presents more opportunities for more diverse forms of freeplay. Flynn identified both with sentiments of playing the game as its designed whilst also deviating from core goals of the game to engage in a short-lived side freeplay activity. Brooke found enjoyment in sporadically following the road rules in *Grand Theft Auto V* but not for the purposes originally set out by the game. Rather, the participant set the personal goal of engaging in this activity for the purpose of fulfilling a curiosity or personal interesting in seeing what would happen.

5.2.3 Sandbox

Sandbox refers *to* instances where players utilise the designed and deliberate sandbox environments of select videogames to create their own play. Sandbox games often grant god-like powers to players, and in many ways grant them the right to experiment and explore a range of play possibilities using the fundamental mechanics as presented by the game. Although this theme, and open world, share a number of common concepts, for this study they have been treated as two separate themes as an open world does not always include a sandbox element. A sandbox style game may take the form of an open world, but an open world does not always afford the god-like powers akin to that of a sandbox game. For example, games such as *Roller Coaster Tycoon 3* (*Atari*, 2004) and *The Sims 4* (*Electronic Arts*, 2014) are sandbox games. These games are not open worlds. Similarly, games like *The Elder Scrolls: Skyrim* are not sandbox games, but are certainly vast open worlds. *Minecraft*, once again tests the typical definitions of games by being both an open world and a sandbox style game. It is these god-like powers that Dan identifies as an affordance towards a number of freeplay activities.

A selection of the participants interviewed for this research have highlighted examples of freeplay where they have utmost player agency, and have abused the god-like powers afforded by the sandbox game, *The Sims*. These participants find enjoyment and satisfaction in a number of activities, including drowning Sims in backyard pools for the purpose of fulfilling a personal curiosity and exploring the possibilities of such an action (Dan). Another example (as provided by Brooke) sees the player exercising their in-game, god-like powers to gain an otherwise unfair advantage.

5.3 Immersion

The third theme of *immersion* describes the forms of freeplay where players are engaged in some activity within the game, and also examines the motivational elements of freeplay that see some players engage in the activities to prolong their enjoyment, to overcome boredom, or to find additional change within the game. In the context of videogames, when a player is appropriately challenged, but still able to accomplish the task at hand with their current level of skill, the player is completely immersed in the game and thus susceptible to longer exposure to the game and extended play (Vygotsky, 1974).

5.3.1 Engagement

Engagement covers the range of emotions players associate with their gameplay and freeplay. Some participants (such as Kaye) described their engagement in freeplay as being a tool that "enhances your ability to play the game", whilst others (e.g. Ethan) saw freeplay as a means of extracting something further out of the game once a player has reached a level of familiarity and experience with the game and its rules.

Engagement with freeplay in videogames can be further broken down into a range of mental states, including: boredom, enjoyment, and a sense of originality and ownership. At times, participants engaged in freeplay as a result of boredom. Many of the participants (Amy, Brooke, Dan, Garret, Joel, Kaye, and Matt) indicated that

after having played the game for an extended period of time under the same conditions, they attempt to find ways to "revamp" the game. These players also noted their intentions for freeplaying sometimes included the desire to break the game and discover bugs and other glitches.

Another factor of engagement in freeplay is the pursuit of originality and novelty in play. Many participants make reference to finding something new, and breaking with the typical activities of the game within their gameplay, to rekindle their interest within the game. Participants also discuss how in-game achievements are awarded for otherwise player defined activities, such as "*hadoukening*[3] a player to death". They describe these types of achievements as limiting the sense of play originality within games.

5.3.2 Mastery

Another core motivation for freeplay is the concept that when a player has mastered the game, they begin to engage in freeplay type activities more regularly. Players at this point demonstrate competency in the basic game mechanics and engage in freeplay activities to find new forms of immersion and engagement with the game, thereby keeping their interest in the game going. *Mastery* examines the role gameplay familiarity and confidence has on freeplay in videogames. Ethan eloquently describes this theme, describing freeplay as "that point beyond mastery where you've got the best mechanics … You've got out of the game kind of what was intended … and you try and extend that with your own set of secondary rules".

Lachlan reflected on the introduction of in-game achievements and trophies. Prior to their prominence in games, the participant would "think up their own ways to make the game enjoyable". This, as suggested by Lachlan, is the origin of activities such

[3] Hadoukening is a special move (called a *taunt*) that can sometimes damage other characters, and is found in *Team Fortress 2* (Valve, 2007). The term is borrowed from the *Street Fighter* videogame series (Capcom, 1987).

as the Three Heart Challenge in the *Legend of Zelda*. In essence, the Three Heart Challenge requires players to skip collecting the additional heart they earn at certain points in the game. Not only does this make subsequent boss battles and enemy encounters more challenging, it requires players to have mastered the fundamental skills of the game in order to accept and accomplish such a challenge.

5.3.3 Prolong Play

Discovery of a freeplay activity, that results in a longer play session than would have otherwise been engaged in as part of a game as intended or designed by the developers. The product of such extended gameplay sessions is continued immersive gameplay for participants and players. *Prolong play* pertains to the diversity of freeplay activities, and factors that trigger and motivate the various forms of freeplay that emerge. One of the core motivations and justifications of freeplay is that the games and activities players develop prolong their exposure to a given game world. Replay, as a form of prolonging play, often takes a different approach on secondary play-throughs of the game. Players invent new challenges, rules and content to alter game difficulty and enjoyment.

Where some aspects of engaging in freeplay are concerned with finding novelty in gameplay (such as players accessing areas in video game worlds that are typically out of reach), some participants freeplayed to the end of extending their play and enjoyment in the game. Garret discussed this aspect of freeplay:

> It just made that fun last longer. We didn't need to buy a new game or go buy a new console or have extra maps or levels or anything we could just deal with what we had and we just made something else up.

In discussions with many of the participants in this study, freeplay was regularly described as an activity that extended play in a game presently being enjoyed.

Throughout the interviews, it was revealed that elements of freeplay can be engaged in when games are replayed and gameplay is repeated. Some participants observed

that their engagement in freeplay was as a direct result of having limited access to a variety of videogame titles. Because of this, participants would find ways to prolong their gameplay through repeating gameplay. As game replay can quickly become tiresome and repetitive, participants engage in freeplay to alter aspects of the game in order to keep their gameplay fresh and engaging. Other participants would voluntarily replay videogames due to familiarity. Matt explained that he would "more happily muck around in a game that [he knows]" even though he has access to many games via Steam[4]. Through some combination of elements, players develop attachments to some games and find means for freeplaying so as to continue enjoyment within that game.

5.4 Social

Although not represented in all examples, many instances of freeplay identified throughout this study were triggered through community influence and sharing of experiences. This theme also examines the forms of freeplay akin to onlooker behaviour (Parten, 1932) through social media or shared multiplayer experiences. There are a number of online communities and social media channels which promote freeplay, and unusual gameplay activities; such as the *Achievement Hunter* and *Things to Do In* series from *Rooster Teeth*. As shown in many of the examples identified by participants in this study, it is not uncommon to find players finding motiviation for their freeplay activities by looking to other players and other communities of players.

5.4.1 Community

The theme of *community* encompasses participant freeplay experiences that feature external sources, friends and other players have in influencing freeplay; specifically, the innovation of these ideas, and dissemination of these activities between players. The community has an incredible influence on the play of all players involved. In multiplayer games, activities are determined by the group (and these include

[4] Steam is a popular online marketplace and game delivery platform that supplies PC/Mac/Linux gamers with access to videogames.

variations to game rules, game modes and general gameplay). However, many players study the forms of play that players engage in, either external to the game (through social media) or through observation of other players and the activities they are performing. The various videogame communities play a critical role in influence all manner of play, including freeplay, with many participants watching videos and playing vicariously in order to find inspiration for their play. This demonstrates that freeplay can be shared, engaged in, and valued by more than the original creator of that play activity. Most participants would use online video services such as YouTube to get access to this content.

The community can also be a deciding influence on what activities participants choose to engage in. Amy, when playing *League of Legends* with other players, preferred to play a game comprised of a team of characters classified under the support class. This participant highlighted that “in a normal game [it] would never work. But we decide to play it and see how that goes, and see who gets the best score and the best combination.” Ethan reported rarely engaging in freeplay, but would be more likely to engage in freeplay when playing with others, and the group collectively decides to do something. This was a sentiment shared by Matt.

5.4.2 Completion

Competition describes the forms of freeplay that emerges between players when competitive elements are introduced into the game environment. These may manifest as player handicaps through to social negotiation of challenges and rules. Many instances of freeplay are the competitive challenges set between players. Whether it be score comparison, social negotiation, or drinking games external to the game.

Of the group in the study, competitive freeplay existed external to the videogame, but was inspired by in-game activities. Dan, would use the events of some videogames (such as *League of Legends*) as a source for various drinking games. Another example of external rules highlighting freeplay comes from Kaye who would apply rules to competitively disadvantage other players in *Super Smash Bros*. This

would result in an abnormally unbalanced match in which “everyone’s horrible at the game, but you’re trying to be the least horrible with a bad character.” These player-defined competitions are friendly, and can either co-exist with existing game objectives, or be distinctly separate challenges. Amy would “setup separate challenges … within the game world. Instead of playing through a level, it would be like the first person to get to the top, or the person that collected the most things, or killed the most things.” Competitive freeplay rules can also be introduced to even the playing field between players. Internally, participants in multiplayer games would devise small competitions, such as seeing who could be the first to reach the top of an in-game hill or mountain.

5.4.3 Dispute resolution

Dispute resolution refers to the innovative uses players have for using videogames as a means for overcoming disputes and indecisiveness inside and outside of the videogame. For example, players in multiplayer games might assign a group leader role to the winner of a previous match or some other in-game accomplishment. Amy would engage in freeplay whereby the first player to reach the top of a mountain or other structure would be declared the winner. Similarly, some participants report using videogames as a tool to solve disputes (or make decisions in a way similar to heads/tails) external to the game, often in the form of stale-mate resolution. Flynn used games in the *Tekken* (Bandi Namco, 1994-2011) series as an argument decider between his friends, and similarly Amy would settle arguments using the *Street Fighter* series. These arguments were often over trivial matters that could be solved in any number of ways, including using the more traditional argument decider of rock-paper-scissors. Rather than tackling major problems, these games were used as tools for participants to decide topics such as where to go, or what to do next. At the very least, these behaviours demonstrate the capacity for games to influence a variety of actions, and in turn permit freeplay to be an activity that can be both centralised (where freeplay inside of the game is the core intention) and decentralized (where the game is used to influence an external set of factors) to other actions participants may engage in.

5.4.4 Interactions

Interactions pertain to the diverse types of freeplay that take place as a result of the actions of two or more players. Many of the forms of freeplay that take play socially result from interactions with the community and its members. These interactions manifest in the forms of cooperation and communication, and griefing, but also support healthy competition and challenges between players. When participants engage in freeplay together, this can become a means of further building the relationship between players.

Participants regularly interact with other players whilst playing games, whether single or multiplayer. The *magic circle* (Huizinga, 1955; Salen & Zimmerman, 2004) describes the boundary and participants for which a game takes place. Although a single player game is driven by a sole player, all others engaged in watching or participating in the game are also inside the magic circle of the game. During their exchanges and interactions with other players, participants (e.g. Garret) would discuss their freeplay conquests and share tips and ideas for engaging in freeplay activities. Participants (e.g. Dan) enjoy exploring the potential freeplay possibilities of a game together. It was also common for participants to work together and collaborate in their freeplay, such as Amy who worked with other players to build various mazes.

By extension, griefing, the act of deliberating humiliating, intimidating or antagonising another player purely for the fun in causing such distress, can be itself considered an act of freeplay. As players engage in activities with the intent of humiliating or annoying other players rather than playing the game with the intention of focusing on the primary objectives. For example, Hunter whilst playing multiplayer games such as *Battlefield*, would regularly commence gameplay with the intention of griefing other players. Matt exploited the tutorial training area of *Age of Conan* (Funcom, 2008) to grief new players, and amass a vast number of kills.

5.4.5 Observation

Lastly, *observation* considers how players pick up inspiration for freeplay activities through watching other players at play. As previously stated, many participants' obverse other players at play to determine the types of activities that are available, or to seek inspiration for their own play. With reference to the literature, Parten (1932) describes onlooker behaviour, parallel play and associative play. All of these forms of play feature limited engagement with others, yet place emphasis on observing the actions of other players. With respect to freeplay, it is common amongst participants for them to witness the actions of other players, and then attempt to repeat those same freeplay behaviours. For example, players (including the participants of this study) gain freeplay inspiration from *Let's Play* videos (Glas, 2015), through watching other players in multiplayer games, and through vicarious play whereby a group of players would gather around another engaged in a single player game.

5.5 Spontaneous

Although not indicative of all forms of freeplay, *spontaneity*, describes the most common form of freeplay where players engage in their own activities at the spur of the moment. Spontaneous forms of freeplay are perhaps the most common and occur at multiple points throughout any game. However, as many of these feature no direct achievement and fail to fulfil any significant purpose, they are quickly forgotten but engaged in nonetheless.

5.5.1 Discovery

The theme of *discovery* relates to the spontaneous realisation of freeplay possibility within a videogame. Often times during freeplay, participants would spontaneously discover that an activity external to the main actions and intentions of the game, is possible. Borrowing from a previous discussed example – that of Dan with the exploitation of explosion damage to team-mates:

> We were playing it and then we accidentally killed each other with the rocket launchers and grenade launchers or something like that, and we thought it was weird because ‘What, we can kill each other now?’ We played around with it, and we thought it was really fun. I thought it was like it was something that passed through their minds when developing the games. They probably forgot to put in a little code that explosives don't do damage or something like that. I don't know. I felt like it was something taboo, and it was something I could take advantage of …

Similarly, when Garret and his father spontaneously discovered it was possible to complete many aspects of the game in Halo, it became a core aspect of their gameplay for a considerable length of time:

> The jumping on each other’s heads was a little bit of a fluke. It was my dad and he was just jumping around checking out this room and I was just looking at the lights seeing if I could shoot them or something and he was like ‘Hold still for a sec I want to try this.’ And he just jumped on my head ... We would split the functions of what you do. Normally you do the moving and the shooting, but if I just do the moving and [the other player did] the shooting, or at least if I can just contribute to some of the shooting from my level, it was limiting my dad’s ability to play the game. You can’t just hide and do whatever, he had to stay grounded with me as we walked around, and of course that meant that he’s reliant on where I walk. But that was fun. That’s what was fun and interesting at that point. So it’d be kind of organic and we’d be let’s just try this. So we’d just be jumping around and be ‘What happens if we did this thing?’ What if we threw the canister into that little jet propulsion thing and watch it float or such things.

5.5.2 Engagement

The second term, *engagement*, reflects how players engage in these activities in the context of spontaneous freeplay. This section looks at how players become engaged with objects and equipment to further their own play objectives. The emphasis that is placed on this theme, compared to the previously mentioned discovery, is that of how freeplay is engaged in. As with much literature surrounding play, many definitions emphasise the spontaneous nature of the activity. Many participants interviewed in this study described freeplay as being something random and menial, in which players would engage in self-described “stupid” fun. Much of a participants’ engagement with freeplay can be described as spur of the moment, which can occur at any point during play. Some participants suggested that freeplay was more likely to occur following a successful or unsuccessful mission, whilst others would be more motivated to engage in freeplay when and as the opportunity would arise.

5.5.3 Variation

Lastly, *variation* in this context considers the types of activities and forms of freeplay that emerge when players alter their approach and the types of activities they engage in. This section looks at the spontaneous approaches and activities engaged in by players. Repeated play can become monotonous and boring over time, so it seems unsurprising that players would find ways to alter their gameplay. Games with driving mechanics like *Grand Theft Auto*, often present roads and other visually designed aspects that help set the scene for the player. However, rarely – if at all – do these games require players to follow the road-rules. Providing the player arrives at the destination, and does not die on the way to the goal, the game ignores all other behaviours. However, at undetermined points in gameplay, Brooke liked to follow the road rules to provide a variable play style to something as mediocre as travelling from one destination to the next in order to progress the game.

5.6 Structure

Structure defines the affordances of the game and the forms of freeplay that emerge as a result. The structure of a game can be physical or narratological. In the physical sense the structure of the videogame refers to the map and level design, and the available physics and other systems in place that dictate restrictions on play. The narratological structure refers to the story and character driven game-based events which progress the game along. Players engaged in freeplay can manipulate both aspects in order to customise their gameplay and prolong their enjoyment within the game.

5.6.1 Achievements

The theme of *achievements* relates to the predefined achievements that are a designed feature of many videogames, and the role they play in players engaging in freeplay. Kaye and Matt revealed that many of the freeplay activities they would typically engage in were being encoded in the videogame as an optional achievement. For example, in the case identified by Matt, where an achievement was awarded for hadoukening a player to death in *Team Fortress 2*. These participants felt achievements labelled their freeplay as a designed feature of the game, and as such this freeplay was less interesting and unoriginal, stating that there “is no sense of discovery anymore”.

Matt revealed that they use achievements and achievement hunting to prolong their gameplay. The sense of unoriginality concerning freeplay and achievements is highlighted by Matt: “I tend not to get achievements because I find that is sort of somebody else's idea of fun, and I try and set my own achievements."

5.6.2 Control

The second term, *control*, demonstrates how in some instances players find enjoyment in following the rules set out by the game, but are otherwise not vital to the game. There is almost an element of irony that players spend much of their time looking to exploit the rules, so much so that by following the secondary or contextually suggested rules of the game they are engaging in freeplay. One such example of this is where Brooke would follow the road rules in *Grand Theft Auto*, stopping at red lights and staying within the lane markings.

Conversely, some players engage in freeplay as their primary gameplay motive, foregoing the game rules and narrative in favour of their own freeplay experiences. Matt stated he disliked playing games as they have been designed, and will attempt to find exploits in the games' mechanics, or "a way to muck around" instead of completing game objectives. It is this essence of frivolity that captures the phenomenon of freeplay on a larger scale.

5.6.3 Freedom

Freedom, identifies the instances in videogames where players are autonomous over the game and world. Common amongst some definitions of play (Cailois, 1961; Huizinga, 1955) is the notion that play is free activity; meaning an activity that is engaged in freely by the individual. Freedom within a game world is a valuable albeit not crucial aspect of freeplay. Some games naturally support the nature of freeplay, whilst others are much more limited. Videogames like *Tetris* present limited although not impossible cases for freeplay, but the argument can be made that the design of the game naturally limits the types of freeplay a player is capable of implementing. In saying that, freeplay is very much at the discretion of the player, and providing the player has an interest in engaging in freeplay and a degree of creativity, freeplay is possible in any game. Linear or ludic videogame franchises like *Crash Bandicoot* afford more opportunities for freeplay, but do not present the most freedom to players. Open or large-scale game worlds with complex physics and mechanic systems present the most opportunities for freeplay to participants and players.

Amy and Brooke identified an appreciation for games that inherently afford freeplay through freedom of activity, in contrast to more structured or linear games. However, even in more structured games, there are still means for engaging in freeplay although Amy noted that it is “a lot more difficult when you’re confined”. Matt recounted the early days of playing Minecraft, where the game direction and purpose was not yet clear to players: “[E]arly Minecraft players were a bit confused about what to do so the big thing everyone tried to do online was create rollercoasters for fun”.

5.6.4 Objectives

The theme of *objectives* pertains to how players engage with or disregard gameplay objectives as stated by the game, and highlights instances where players seek objectives that are otherwise unstated in the game. Many games feature clearly stated directions and objectives. This theme looks at players as they define their own challenges and disregard pre-existing game objectives.

Amy distinguished between playing the game objectives and engaging in freeplay: “This is not me doing the quests or following the narrative, it’s me exploring every tiny nook and cranny.” As previously noted, engaging in freeplay can be a tool for prolonging gameplay: "[reinvigorating] your love for the game, which means now that you are tired of exploring or doing those other things ... I suppose it's about keeping the game alive."

Participants are also able to define their own gameplay objectives; new rules and outcomes designed by and shared amongst other players. Dan and Joel had engaged in custom game modes in *League of Legends* and *Call of Duty* (respectively) where the fundamental purpose of the game had become a platform for playing hide and seek – or variations of such a game. Garret devised gameplay objectives that included running through an entire map in *Halo* without killing any enemies. Hunter described their view of gameplay as a suggestion based on how the developers “would like you to play a game”.

5.6.5 Variation

Lastly, *variation* considers how players can alter their gameplay from that intended by the game to prolong their gameplay longevity. The variety of gameplay alterations exhibited by the participants included customisable settings and alternative objectives. Dan discussed some of the settings that can be customised in *League of Legends*, allowing players to customise their gameplay, and in turn prolong their engagement with the game, and afford more diverse forms of freeplay. The participant would "use those [settings] to make [the game] more fun", having found the standard game boring.

Other cases include those where participants consciously altered their gameplay, and their gameplay objectives. Amy would actively chose to "look at a box and walk away, and see if [they] can go backwards" in first person shooters. Here the participant disengaged from the primary objective of a first person shooter, and engaged in non-critical activities. Similarly, Dan altered the gameplay objectives by changing the racing direction in driving/racing games while playing with other players. The advantage of varying gameplay was elucidated by Garret in that they "didn't need to buy a new game … or console or have extra maps … we could just deal with what we had … we just made something else up."

5.7 Discretion

All play is voluntary, however by engaging specified rules or game modes in addition to those of the game itself players are able to engage in forms of freeplay at their discretion. Play as a voluntary behaviour is a core principle of many definitions of play. Largely, this is true for freeplay as well, however, in some instances (where social groups are considered), players will follow the herd – retaining some degree of choice, but largely following with the activities of other players. All play is entered into voluntarily, and this is no different with respect to freeplay. Freeplay sits as an additional layer that flows on from immersion and enjoyment in the game. Players must pass through the first layer of *play* in a videogame, in order to reach the second layer of freeplay.

5.7.1 Gameplay

The first theme of *gameplay* relates to how players voluntarily engage in selected actions of their gameplay, and how they engage in all forms of freeplay voluntarily. Cheating in videogames is a prime example of players voluntarily altering their gameplay. Although in this case, the outcome tends to be to gain an unfair advantage over the game itself. Providing the means of cheating does not physically alter the game, or require specialised hardware (such as a *GameShark* device or current equivalent), then this too becomes a form of freeplay. There are, however, a plethora of instances as identified by participants in this study that demonstrate the voluntary nature of freeplay.

An example of this is discussed previously in this chapter by Dan, when they invented new gameplay using various rocket and grenade launchers in *Lara Croft and the Temple of Osiris*. This example demonstrates the voluntary nature of freeplay in that although the game has afforded this play, participants and other players voluntarily engage in taking the game further than what has been designed by the developers by exploiting the splash/radial damage of explosive weaponry in an otherwise non-pvp[5] game. In discussing the C4Jeep in *Battlefield* – a voluntary tactic where explosives are placed on a vehicle which is then rammed into other vehicles and enemy players dealing a wide range of damage – Hunter felt that although this activity was never an official strategy, it was intended by the developers, having the game naturally afford such a voluntary strategy. Abstracting this aspect of voluntary participation, those on the receiving end of this particular strategy have no means for opting in (or out) and thus their gameplay can be impacted by the actions and freeplay desires of another in some circumstances.

[5] Player Vs Player, in that players are able to damage other player avatars in game.

5.7.2 Optional

The second theme, *optional*, reflects the activities, challenges and gameplay that they engage in freely. This section looks at the optional achievements, challenges and activities players choose to participate in (include multiple replays of previously finished or completed – or part thereof – games). This also includes instances where players gain an otherwise unfair advantage over the game. Dan and Joel had both engaged in optional gameplay modes in *League of Legends*, offering a version of hide-and-seek as an example of freeplay that is defined by players. Similarly, participants Isaac and Joel had engaged in a variant of hide-and-seek in *Call of Duty* called *Michael Myers* (or *Mike Myers*). In both videogame titles, players adapted the traditional rules of hide and seek and recreated the game using the provided mechanics and tools of another. This form of freeplay is optionally engaged in by players designating that they intend to play this game mode and then seek out other players willing to participate.

Similarly, the Nuzlocke Challenge in the *Pokémon* franchise is an optional set of rules and challenges that make the formulaic game much more complex, and was discussed by Brooke, Charlie, Joel, and Kaye. These optional rules vary the difficulty of the game, introduce new mechanics and concepts to the franchise (such as perma-death[6]) and assist players to prolong their gameplay and enjoyment of the franchise. Similarly, Lachlan noted that some more advanced players would engage in a popular gameplay variant called the *Three Heart Challenge* in the *Legend of Zelda* franchise.

In contrast to the community driven (and named) options previously stated in this section, it is possible to engage in optional challenges in many games without community influence. For example, some participants (take for example Lachlan) found additional challenge in the already complex *Dark Souls* (FromSoftware, 2009-

[6] Perma-death, or permanent death, is common throughout survival videogames. The concept can vary, although generally players must restart the game from the beginning if defeated (and all progress is lost). However, in rare cases some videogames only permit the player one-play-through, with the game becoming unusable following a death in game.

2016) franchise by playing the game naked. For clarification, the player avatar has all armour removed thereby lowering defence and becoming susceptible to death much more quickly. The player engaging in this form of freeplay would need to be sufficiently skilled to take on such a challenge. The primary researcher cannot comment as to the clothed status of the participants in this study.

5.8 Reflection on freeplay

One possible reason why players engage in these activities is to maintain the state of flow. Flow is the state of mind attained by an individual when involved in an activity that is sufficiently challenging, and requires a high degree of skill to complete; it is the state of complete involvement and engagement in the activity. In the context of freeplay in videogames, players are familiar with rules, and they are comfortable with the controls and mechanics, yet want to reinvigorate their gameplay through the introduction of additional or alternative challenges or activities.

Freeplay manifests as a form of flow – if players have gotten to a point in the game where they understand and enjoy it, then it seems almost logical for them to find ways of prolonging their immersion in the game. They can modify the challenge of the game, having mastered the required skills. However, it is important to note that flow is not the only motivator for freeplay. Other motivators for freeplay include boredom, limited availability and variety of other videogames, or simply because the player enjoys the design of the world and wishes to remain involved or connected to it in some form. Curiosity is a common motivator for freeplay. This was observed in a clear majority of participants. When engaged in freeplay participants are rarely seeking a higher score or to gain some advantage, but rather freeplay is motivated by a desire to accomplish a personal accomplishment/goal.

Flow is a state of mind, and is not something tangible that can force individuals to do something. By examining the two dimensions of flow (skill and challenge), is it possible to conclude that freeplay occurs because players are attempting to manipulate challenge, skill, or both, to get themselves back into that state of flow.

Because they want to have that feeling again, they will do anything they can to get that hit of flow. And if they like the environment they are in and enjoy the conditions the game has presented, then they are going to start manipulating the skill and challenge to foster freeplay.

Flow often has a perception of time passing quickly, to the point where it is not uncommon for players to be heavily involved in gameplay for extended periods of time that seem to pass by in an instant. Time in freeplay is not a significant factor in that many freeplay experiences tend to be short-lived and forgotten shortly thereafter. Take for example the different games that people play. Considering the example of *Lara Croft and The Temple of Osiris* (from Dan), two friends discovered they could invent their own game and invent new challenges through the manipulation of existing game mechanics and features (even with PVP turned off). What should have not impacted the characters, did. And whether this was a designed feature, or a bug mistakenly left in by the developers, is unclear. This activity was engaged in for an extended period of time, and the activity took place over multiple days and play sessions. The players in question enjoyed the game aesthetics and mechanics, and they liked the game that they discovered and defined.

In some contexts, flow is the cause of freeplay. Players are looking to keep the game going, they are pursuing activities to prolong their gameplay and enjoyment and as such choose to engage in freeplay. In other contexts, flow is the product of freeplay. When players stumble upon something they can do in the game that they did not otherwise know what was possible, they are going to engage in that activity because at that point in time it becomes fun. It features its own particular challenge and skill requirements, and as such returns players to a state of flow.

In play, many participants were looking to push the boundaries of the game, whilst others were simply mucking around. The cause of play is not a mistake. It's often routinely discovered, exploited, and repeated. Almost all participants would engage in freeplay that featured some aspect or element of flow: constraints and limitations to alter difficulty and challenge, or accomplish feats as an attempt to test acquired

skills. Whether known to the participant, or whether it's a cause or product. This is a theme also reflected in freeplay. There are some low-level freeplay activities that are spontaneous and quick, without any collective goal or function. Similarly, there are more higher-level freeplay activities such as those with players defining complete games. There is no question that there is a difference between a player stumbling upon an activity and thinking "[O]h, I can do that … I'm going to do that again", and another player saying "I want to challenge myself by completing this game without armour or clothing". Another form of freeplay observed in this study saw players significantly altering the game and developing their own game modes and rules (such as Nuzlocke, Three Heart Challenge, Mike Myers, Hide-n-Seek, etc).

Players freeplay to trigger the state of flow and immersion. Players will inevitably abandon a game either for extrinsic factors (a new game release, or external work/life pressures) or when there are no more changes to challenges or skills that can be extracted from the game. It is at that point that gameplay and freeplay have been exhausted in that given game title. As such, in can be said that all freeplay has an expiration point.

Upon further reflection of the examples identified by participants in this study, freeplay instances can be loosely considered under three categories: spontaneous diversions, player defined objectives, and games within games. *Spontaneous diversions* characteristically take place throughout regularly gameplay, and occur when the player is momentarily distracted by a freeplay activity or the discovery of an opportunity to freeplay. An example of this would be a player randomly deciding to kill fish whilst on the way to the next mission or quest, or a player deviating from the core objective of the game to go on a mass-murder spree in Grand Theft Auto "just to see what happens". *Player defined objectives* require a conscious decision on the part of the player to actively engage in freeplay within a videogame. Examples of this would include the application of player defined rules/challenges such as the Nuzlocke Challenge in *Pokémon*, or players consciously deciding to attempt to drive over the thin metal structure of a bridge in *Grand Theft Auto V*. Lastly, *games within games*, describe more complex forms of freeplay where players integrate alternative game mechanics into pre-existing game titles. Examples of this

included instances where participants integrate games such as hide-and-seek into *League of Legends* or *Call of Duty*, *Tetris* in *Halo*, or when two players play a game like *Lara Croft and the Temple of Osiris* and invent a new player-vs-player game through exploitation of splash damage from rocket and grenade weaponry.

5.9 Summary

This study has revealed that the characteristics of freeplay expand into all themes of play as elucidated in the literature. Furthermore, the wealth of information provided by the participants unveiled many sub-themes which have been included herein as meaning-units extracted from the interviews. Throughout this study, it has been demonstrated that a multitude of players can take a plethora of videogame titles from across many genres, and devise a great many means for freeplaying. The structure of the game often dictates what is possible with respect to freeplay, as the activities that are secondary to the primary gameplay objectives need to be afforded by the attributes of the game itself. Some games inherently offer players a larger degree freedom and choice, and it is in those games that freeplay can flourish.

Chapter 6: Conclusions

Freeplay can be defined on many levels, however, in the context of videogames freeplay is a voluntary act of prolonging gameplay through the explication of pre-existing game mechanics and artefacts, where participants/players create new play that is distinct from the designed intention of the videogame itself. Players engaging in freeplay demonstrate high levels of creativity and creative thinking, having discovered what is possible through the affordances of the videogame and then defining new goals and objectives based on their play intentions. Freeplay in videogames requires players to explore all aspects of the possibility space, with open world or more complex/layered videogames affording more varied forms of freeplay than linear or limited games. Freeplay is theoretically possible in any videogame; providing the player can devise a new activity, challenge or circumstance, their gameplay can be altered without needing to physically alter or change videogames. As gameplay is designed to be immersive, freeplay naturally inherits the characteristics of play and aspires to prolong a players' engagement with a given videogame title.

6.1 Key concepts of freeplay in videogames

A concept that routinely emerged throughout the study was participants seeking to extend the challenge of the game, having felt a sense of boredom or neutral satisfaction having mastered the game elements. Participants would then engage in freeplay to rekindle their engagement and enjoyment with a videogame whilst also, perhaps subconsciously, seeking to re-enter a state of flow. By finding new challenges and progressing skill through the accomplishment of more complex or varied activities through freeplay, players are prolonging their engagement with the videogame.

This study further revealed the importance of the social element when it comes to participants and players engaging in freeplay. The greater gaming community work together to devise new means for freeplaying, inventing new game modes and

sharing freeplay feats that can be achieved. It is common practice for participants to observe others at play, and then attempt to replicate the freeplay of others in their own games. Social media forms an integral platform for players to share their accomplishments, plus custom rules and activities, for others to engage.

Although not indicative of all freeplay, spontaneity is a key factor in many of the activities participants described throughout this study. The notion that an entertaining aspect of play can happen at the spur of the moment effectively summarises the nature of freeplay in videogames, with many of these activities described by participants as fleeting experiences that were short-lived, temporarily enjoyed, and quickly forgotten. Participants engaging in freeplay routinely deviated from the primary objectives of the game to engage in this spontaneous freeplay, before returning back to the original goal or purpose of the game; often times, participants stumbled upon a freeplay opportunity and then actively decided to deviate from the direction of the videogame.

In a wider gaming context, the findings from this research suggests that players demonstrate ownership of the medium of videogames through freeplay. Participants demonstrated an active role in their gameplay by engaging in custom activities, objectives, and challenges that inherently prolonged play and exposure within existing videogame titles. Participants were not passive in play, and it can be suggested that players take an active role in keeping engaged with the game, and subconsciously maintain the mental state of flow beyond that which has been designed in the game. For game designers and researchers, this research explores how players are engaging with videogames in ways developers can only begin to imagine. Future research, could consider the integration into videogames, of fundamental factors that naturally afford freeplay for players – beyond that of modding, where the core code of the videogame is edited. The argument can be made that by gifting players with the tools to naturally prolong player engagement and gameplay in a given videogame title through freeplay, a players' attachment and appreciation for a franchise could be increased. From the perspective of videogame and play research, this study presents a number of case studies and instances that demonstrate the role freeplay has in gameplay. Further research in this domain

could continue to investigate the motivations for why players engage in freeplay in videogames. In addition, it would be worthwhile considering the extent to which the role of freeplay plays in the wider gaming community, and if prior gameplay experiences and confidence impact the forms and factors that constitute freeplay.

Play in videogames can be seen as a combination of designed gameplay and player defined freeplay that is engaged in by players. The act and phenomenon of freeplay is diverse in both the contexts in which it takes place, having been identified as taking place in a variety of single player, multiplayer, open, closed, linear and non-linear games. Freeplay is possible in any game, providing the player can define their own custom objectives. The degree to which freeplay is possible in a game, however, does vary based on the inherent characteristics of the game itself. Players engaging in freeplay are exploring new challenges and new modes of play to the end of prolonging their gameplay and filling in time between primary gameplay objectives.

Freeplay is characteristically defined by the creative acts of players engaging in activities not deemed to be a designed or intended outcome of the game. These acts are voluntary forms of play that often occur spontaneously as a result of players discovering possibilities to freeplay through experimentation with videogames. Although not evident in all instances, freeplay is often a social act that occurs when participants are playing together, or is shared through social media in a form of publicised accomplishment of various feats and achievements. Freeplay shows the potential for players to take an active role in their gameplay, defining objectives and engaging in all manner of activities to find and maintain the fun in gameplay irrespective of the design of a game. As many play psychologists have observed, when provided with tools players are capable of defining their own games and in the context of videogames this play is no different. What is different though, is an apparent disregard of the primary gameplay objectives in favour of freeplay at often sporadic or unpredictable times. Freeplay is spur of the moment fun, that is temporal and quickly forgotten, or something much more impactful players that can bring with it a sense of pride and accomplishment.

Freeplay is a temporary, creative expression which contests the rules, structure and direction of a game; it sees players manipulating game rules for their own motives, both intrinsic and extrinsic. Freeplay can manifest in many forms, with the spectrum of freeplay featuring examples that range from incidental and spontaneous activities that are short lived experiences for players, through to dynamic and complex game and game modes defined by gaming communities. At the beginning of each interview, participants were asked to comment on their general gameplay experiences. These views were used to gather background information about the participant, but also to determine the context of their gameplay experiences. Included in this data were instances where participants broke the rules, or those activities that were outside what was thought to be a designed or intended feature of the game. From the beginning of each interview, the term freeplay was consciously avoided so as not to educate or unnecessarily inform participants. Thus, allowing their opinions, observations and recollections of freeplay to emerge naturally. Once participants become more aware of the type of play behaviours that were of interest to this research, participants were able to reflect on many other instances where they had engaged in freeplay in videogames.

6.2 Contributions

Presented throughout this dissertation has been an exploration of the phenomenon of freeplay in the context of videogames. A primary goal of this research was to reveal the breadth of freeplay in videogames, documenting multiple instances of freeplay. Presented here, has been a diverse range of freeplay examples that include participant recounts and observed instances of short-lived freeplay experiences, the application of custom rules and game modes to prolong gameplay, and the integration of further game mechanics to create new games or recreate popular games inside of existing videogame worlds. Contrary to suggestions that freeplay is something made possible in only open world and sandbox type games, this research has demonstrated that the genre of the game is not what defines freeplay possibilities. Rather, freeplay in the context of videogames is player-driven with many of the examples discussed throughout this research occurring in games from multiple genres and of varying degrees of openness.

The analysis presented throughout this dissertation has revealed the attributes of freeplay that are afforded by videogames, with these attributes being informed by existing literature. These attributes provide insight into how players engage in freeplay and play in videogames.

Freeplay is a multifaceted phenomenon that is comprised of seven key characteristics: creativity, exploration, immersion, social, spontaneous, structure, and discretion. Player creativity is a central component to freeplay. It is the player-driven actions that spur freeplay, as the videogame must remain ignorant of those freeplay actions for them to be considered distinct from designed or intended gameplay. Players explore all aspects of videogame worlds, and take away with them memorable experiences. It is through exploration that players discover the possibilities of what can occur in a videogame, and thus the types of activities that can be engaged in. Engagement in freeplay produces a sustained level of immersion in the videogame, thus prolonging play. Players may engage in freeplay as a result of becoming bored with the game, which according to flow theory is an indicator of a need for modified skill or challenge. It can then be said, that players are manufacturing their own challenges to remain in the optimal state of immersion: flow.

Play is a sociable activity, and what has been observed in this research is that freeplay activities are both routinely shared with others, and also inspired by the actions of other players. In various communities, players formulate their own custom rules and gameplay (such as the Nuzlocke Challenge in *Pokémon*) which are then shared and engaged in by other players. Although not all freeplay is spontaneous, many of the examples highlighted throughout this research are spontaneously engaged in as if by accidental discovery. These moments are potentially short-lived and inconsequential to the player, and thus quickly forgotten. Whilst other forms of freeplay are intentionally planned, designed and engaged in. The structure of the videogame can afford the possibility of freeplay, for it is how players utilise mechanics and existing game components to define their own play. Just as is evident in play more generally, freeplay is a voluntary activity that is engaged in at the discretion of the player. Where the designed game objectives may see players

forced to complete some components or actions to progress, engagement in freeplay is completely optional, and is an activity never recognised or rewarded by the game.

A further outcome of this research documents the symbiotic relationship of gameplay and freeplay. Throughout gameplay, it can be suggested that players appear to deviate from the structured, designed and intention objectives of the game at various points of play, to engage in freeplay. All other activities engaged in by players, that were not an intended objective, action or outcome of the game can be considered as freeplay. Freeplay in videogames presents as a means for players to prolong their engagement and gameplay with game titles they choose to play.

This research, and freeplay in videogames collectively, demonstrates that at all times players maintain agency over the game, the game world, and ultimately what they consider fun. For game designers and developers, what this means is that by appreciating and providing players with the possibility to freeplay, players have the capacity to remain engaged with the game for longer periods of time than would have potentially been otherwise considered. The role of game design then, is to provide a possibility space for play and freeplay, but ultimately the player decides the means and forms of play they wish to engage.

As this study serves as an interpretive phenomenological analysis, the conclusions drawn cannot be generalised to the wider population. The key intention of this study was to form an introductory examination of the phenomenon which is freeplay in the context of videogames. However, phenomenology as a methodology does have some limitations (Shi, 2011). Establishing reliability and validity in phenomenological studies is challenging, as it is often difficult to detect or prevent research induced bias. However, an interpretive phenomenological approach welcomes researcher input in terms of helping to further understand the phenomenon and other lived experiences. The nature of qualitative results in many cases results in unclear real world applications of the data. The framework method was used throughout this study as a means to improve on access and clarity of the findings, thus contributing towards overcoming this shortfall. The small sample size

of a phenomenological study means there are likely to be many more examples and experiences of freeplay from other participants and players. However, this study accepts that there will always be an expectation associated with the potential for more data, or better quality examples. With that said, the plethora of examples listed herein from a small sample group plus examples pulled from external sources, is fairly indicative of the phenomenon of freeplay being justified in the context of videogames.

6.3 Further work and future research

This research presents an introduction to the exploration of the freeplay phenomenon in the context of videogames, which has much more to explore beyond that of the scope of this dissertation. Having formulated a definition of freeplay in the context of videogames, and explored the contexts and examples in which freeplay is possible in games, the following aspects of freeplay would be worthwhile.

- Examine the motivational factors that trigger players to engage in freeplay. It would be identifying what events throughout gameplay are likely to cause players to want to deviate from the core game objectives.
- Further explore the extent to which freeplay is engaged through an empirical, quantitative study.
- Examine how game designers and developers can integrate support for freeplay in videogames.
- Examine engagement times and game popularity, asking whether or not by players engaging freeplay, and gameplay being prolonged, how players interact and engage with the game title and franchise.

6.4 Final remarks

Existing literature on freeplay often confuses, or seemingly generalises, the aspects of play. Whilst it is true that freeplay is a subset of play, freeplay in videogames exists as a duality with gameplay; players engage in both freeplay and gameplay, and it is through this symbiotic relationship that videogame titles become and remain immersive and engaging for players. What is lacking from the literature examined for this research, is a clear definition of freeplay. Having observed and discussed freeplay with the participants in this study, it is clear that freeplay is an integral component of gameplay that can vary from a short-lived, quickly forgotten moment of fun, through to the development of a far more complex game using existing game mechanics in a pre-existing game title.

Freeplay is player-driven, voluntary and creative form of play that manifests following a players' exploration of the possibility space of a videogame; taking form as a spontaneous discovery of play, involving players defining their own custom rules and gameplay modes, or featuring players creating or integrating new games into existing game titles without modification to the videogame. Players engage in freeplay to prolong their gameplay and enjoyment with a videogame title, or to seek further challenge and a sense of intrinsic accomplishment and validation. Some players pursue freeplay to remain in the optimal mental state of flow, where an individual is presented with challenges to match their level of skill. The social aspects of freeplay can be witnessed throughout social media, with players feeling a genuine sense of pride and wanting to share their achievements; achievements to which the videogame is otherwise oblivious. Similarly, players seek inspiration for freeplay challenges and activities through social media and activities and accomplishments shared by other players.

This dissertation explores the phenomenon of freeplay with respect to videogames. Whilst small-scale qualitative methodologies such as that of an interpretive phenomenological approach result in data that is not considered statistically relevant, this thesis does provide evidence of the phenomenon occurring in the context of videogames confidently throughout a sample group in conjunction with

external examples to support the notion and popularity of the phenomenon. In hindsight, it would be worthwhile considering a wider participant sample, introducing a preliminary screening technique to ensure all participants involved could contribute a wealth of examples of freeplay. Having said that, all participants contributed a tremendous number of examples of freeplay as they have experienced it in the context of videogames. One of the most time-consuming aspects of this study was transcribing data. It would be worthwhile reconsidering the transcription process to accelerate this process, whilst also retaining data accuracy. Whilst employing a stenographer would expedite the transcription process, it adds the possibility of transcription error especially where the stenographer is not familiar with videogame titles and terminology. Following on from this study, a qualitative focus group or quantitative survey could be deployed as a means for furthering the validity of the findings from this research and meaning extracted from the study.

Thus, this dissertation has begun the exploration of the phenomenon of freeplay in videogames. Whilst there is further work required to fully understand the phenomenon, just like play, freeplay is something that in the words of Lehmann and Witty (1927) almost a century ago, is something that "cannot be known until the whole truth regarding life itself is known" (p. 175). Play is a glorious gift to humanity, and remains an activity central to so many aspects of our lives. Freeplay in videogames is the exploration of an infinite number of virtual realms, filled with possibilities for play; it is the discovery of spontaneity, of play longevity and player creativity that exemplifies the beauty of play itself.

It is easy to become engrossed in the somewhat authoritarian nature of game design; crafting game experiences for players. However, acknowledging the presence and possibility of freeplay humbles the designer; reminding us that although a game can be crafted with the assumption that players will experience how it has been designed, it is the player that ultimately decides what, why, and how they want to play. Videogames transcend even their own potential as envisioned by videogame designers, with the medium affording players avenues to find further joy and entertainment through the game. The challenge is thus set forward, may all players continue to push the boundaries of videogames, finding

novel and exciting opportunities for freeplay that can be cherished, so one day we can understand the true potential of the medium.

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APPENDICIES

APPENDIX A: Guiding interview questions

1. Let's start with you telling me about your game play experiences in general.
    - What games do you spend the most time playing?
    - What is/are your favourite videogame(s)?
    - What do you enjoy the most about those game(s)?
2. Tell me about any times that you've played a videogame or used it in a way other than it was originally intended.
    - What inspired you to play this way?
    - Is this something you would regularly do in games?
3. Can you recall a time that you broke (or exploited) the rules when playing a videogame? Tell me about that.
4. Tell me about a time where you defined your own rules or goals whilst playing a videogame.
    - What rules or goals did you set?
    - Why did you set those rules/goals?
5. When do you consider a game complete or finished?
    - How important is the story to deciding if a game is "completed"?
    - How important is collecting all in-game achievements to deciding if a game is completed?
    - What influences your decision to stop playing a videogame?
        - If you get bored with a game, have you ever tried to play it differently to prolong gameplay and your enjoyment? If so, how?
    - What activities do you undertake in a game to prolong gameplay?
6. Have you returned to play a game you've "completed" or stopped playing previously? Tell me more about what motivated you to play the game again.
    - Do you return to games once you consider a game "completed"?
        - How long after completing a game would you consider returning to it?
    - Do you prefer to replay games from previous save points?

        - What do you hope to achieve from replay games from previous save points?
        - What do you hope to achieve that is different?
    - Do you replay games from the very beginning?
        - What do you hope to achieve by replaying videogames?
        - What do you hope to achieve that is different?
7. Can you recall any other times where you've played games differently to how most players would play the game?
8. Is there anything we haven't covered about your game playing habits and experiences that you'd like to tell me about?

APPENDIX B: Additional supporting quotes

Creativity

Theme	Supporting Quotes
Affordance	"There are endless possibilities to make mini games or take advantage of something that wasn't intended in the game and make fun out of it, or have fun with it." (Dan) "WiiSports when it first came out – it was amazing – I can move my characters' arms and you just make them do stupid things like wave and slap themselves in the face..." (Flynn) "[The C4Jeep is] a strategy that's stupid, not really effective… you're putting explosives all over [a Jeep] and just ramming it into vehicles… You're just ruining one particular person's day…" (Hunter) "I like coming up with things to do. As weird as it sounds, I like to do jumps off mountains and see how far I can get… in anything really!" (Brooke) "[In Grand Theft Auto] there was a gate that… would send the car flying across the map. So its kind of like a slingshot gate, that's what people were calling it. So you'd drive into the gate, and it would slingshot your car." (Charlie) "I take out the ladders on the swimming pool and watch Sims swim helplessly… I don't know, it was just something random." (Dan) "Yeah it's kind of like that point beyond mastery where you've got out of the game what was intended to be got from it, and you

	try and extend that with your own set of secondary rules… Because you could… it creates a different style of play." (Ethan) "…in games like Minecraft you can set up explosives right next to a person's house so they come and open their door and their whole house explodes. There's definitely good ways to be mean to somebody in a game if you're happy to exploit the rules." (Matt) "I know that in League of Legends they have this game mode called hide and seek. Which is where one player is Teemo, and he goes stealth after being inactive for a few seconds, so [they are] on a team by [themselves] and then everyone else is on the other team… the other 5 are just whoever they want to pick. The round consists of these 5 people hunting down Teemo." (Joel)
Interface	"… after playing a few rounds [of Super Smash Bros] normally, we had weird rules like the person sitting to your left had to play as this character… So you'd pick all the worst characters that you could to try and give them a handicap… we had a round that was 3 Jigglypuffs, Ice Climbers and Peach and it's just everyone's horrible at the game, but you're trying to be the least horrible with a bad character." (Kaye)
Goal Setting	"We kind of formulate our own game modes a lot of the time" (Amy) "We made a maze once [in Minecraft] where you had to work cooperatively to get through the maze, but in the end only one person could ever finish it." (Amy)

"My brother and I, at one point, decided to try racing backwards." (Dan)

"[Discussing times where one player would jump on another players' head and play through the game balanced on their head] But we thought it was fun and we made that the mission. We made that the game." (Garret)

"You walk around next to rivers and you see how many people you can push into the river before the guards come and try to kill you. So you'll save your game and you'll stand next to a well or something and the guards will all run towards you and you'll turn around and push them into the well. It's the best thing in the world." (Isaac)

"If you look at something like Speed Running where it's 'Let's see how quickly I can beat this game.' It's adding that huge amount of challenge to it, especially with streaming – a lot of it is adding challenge to that game and saying 'I'm the best at that.' There's huge championship leagues and it's about creating those really challenging things to do for yourself." (Flynn)

"…friends and I have set rules like 'Don't use those...' Just fight with you broken sword or whatever you've got at that stage" (Hunter)

"You just create your own rules and you're trying to have as much fun in that sandbox environment as you can. But also in a lot of MMOs in the down time when you're raiding and you're at max level, everyone is just looking for something to fill time so they do stupid stuff." (Matt)

	"At a certain point when you've mastered or you feel like you've mastered a game, you start setting your own challenges. And at that point you, it's really your own goal oriented fun, so you just look for interesting things to do." (Matt)
Difficulty	"We found a few glitches around that, like jumping puzzles that you could get to the top of by glitching off the top of a cliff or something like that and managing to survive, or in the case of Guild Wars 2 there is a special game class called 'Mesma' that is able to have a portal. And what they do is put a portal at the top of whatever jumping puzzle, or at the end of a boss and they would jump off and leave the other portal there. And people would then pay like 20 gold to use the portal, and then run through. That's an exploit, you're not really supposed to do it that way." (Amy) "My brother and I, at one point, decided to try racing backwards." (Dan) "…before you even enter the room if you aim just right you can throw things over the walls and kill [the boss] before you go in the room and that's a very cheap way, but that boss is one of the most horrendous bosses in the game…" (Lachlan) "I think this was from the first Quake but it gained prominence in Quake 3… you had a grenade launcher, and you could lob a grenade under your feet and it would shoot you up to higher heights and of course you'd take a good chunk of damage with it… You rocket jumped to get yourself a better vantage point, especially if you were in the air you could have a better way to fire on people below you." (Lachlan)

	"… once you've played a game a whole bunch of times you had to try to find a way to make it challenging again. So we used to play a lot of the Mario Party mini games but every time if say we were playing button bashing it would be whoever can press 'button A' the most times, and we'd say for this one you can only use your chin." (Kaye)
Discovery	"Most of the time I play [Minecraft] on creative servers with friends… We build ridiculous castles… I try and kill [other players] as creatively and as oddly as possible." (Amy)
	"I've got this little glitch I do, I will make the people and what not… Then I go into the world, edit the town, build the perfect house with furniture and stuff in it. Then what you do is, without cheating, you kick the rich family out and move your Sims into the other house, then you keep all the money!" (Brooke)
	"In racing games, like [Mario Kart] or Crash Team Racing, you would try to get off the map or try and find a shortcut that wasn't intended." (Dan)
	"…every cool thing [the developers] put in a game, they'd link it to an achievement… and I think it kind of ruins the discovery a little." (Lachlan)
	"In the Witcher, or Witcher 3 that I've been playing recently, I've just been screwing around and found an impossible unbalanced build where I can just pick on enemy monsters and they can never kill me, so I'll have fun just watching them attack me." (Matt)

Exploration

Theme	Supporting Quotes
Curiosity	"And the game is like 'please go forward and sneak, and do the things' and I'm like 'no, we will go and look at other stuff'. Sometimes I wonder what if I made this sound, would something happen." (Amy) "First Person Shooters for me are really good… because I will go off and do random things, and derp [(fool)] around over there, and I will look at a box and walk away, and see if I can go backwards just to see if I can." (Amy) "…sometimes in Grand Theft Auto we might decide to do a race in reverse… so you drive in reverse." (Ethan) "…I went through the game either exploring or following my own goals until I got to a point where I've had enough fun in this world at which point I'll leave it alone." (Lachlan) "When I start a game I'm generally just there for fun… but after a while if it starts getting a little bit monotonous then you start looking for ways to break out of the monotony… [it] starts off as 'Oh look at this. This is sort of bugging a bit. I can kill this monster over and over again.' You wait for a bit and it respawns and it's got really good XP or it's really good gold or something like that. So it starts off relatively innocently but then you get further down the rabbit hole." (Matt) "We often create teams that are ridiculous, so we will change the game for ourselves." (Amy)

Open World	“Sometimes I teleport from map to map to map, just doing random menial things like killing five different types of fish for no good reason.” (Amy) “I like being able to do anything, making up your own stuff. Like what they do on Achievement Hunter. [Grand Theft Auto] is a huge world, and you can pretty much do anything you want.” (Brooke) “Pokémon Omega Ruby/Alpha Sapphire are such big games, you can kind of do anything. Sometimes I just get on and roam around for a bit. I like to make a competitive team so I could verse people at PAX. Its really hard, because you can’t really do anything after the story is over, but you can make little challenges for yourself.” (Brooke) “When you get to the end you can do your own thing. You can roam around in free-roam, or do the set strikes, raids, all that sort of stuff.” (Charlie)

Immersion

Theme	Supporting Quotes
Engagement	"This is not me doing the quests or following the narrative, its me exploring every tiny nook and cranny. It reinvigorates your love for the game, which means now that you're tired of exploring or doing those other things, you can go back to what the game actually intends you to do. I suppose its about keeping the game alive." (Amy) "My brother and I, at one point, decided to try racing backwards." (Dan) "I'm not really starting it for any other reason other than because I'm bored and it's there and I guess to a certain extent if the game rewards it. If there's PVP [(player-versus-player)] levels and killing other players somehow benefits me, then I'll start trying to game the system as much as I can to sort of abuse it, but other than that, sometimes it is just silly fun as well." (Matt) "Its hilarious killing fish because they float when they die! Sometimes, [a friend] and I used to play together we would just yell at each other from the other room and we would go on random quests here and there and kill all the small creatures on the way. 'This is not your day, crow!' And we just do stupid stuff. That was fun. It was more fun than it sounds!" (Amy) "But we thought it was fun and we made that the mission. We made that the game. And I wouldn't say it was necessarily more fun it just extended it. It just made it that fun last longer. We didn't need to buy a new game or go buy a new console or have extra maps or levels or anything we could just deal with what we

had and we just made something else up. We just made it up. That's probably one of the big ones for us because it took a lot of time and it got into this new challenge that we made for ourselves." (Garret)

"Or cause you're playing with friends you're just sort of mucking around, so we'd try and kill people in humiliating ways with things that you probably shouldn't kill them with. Like for instance you'd be trying to kill someone by running then over with a jeep, but you wouldn't just run over them, you'd have to get out of the jeep and coast it into them. You'd line them up from ages away and you'd be driving along as fast as you could and you'd get out and just watch the jeep going and hit them." (Hunter)

"Sometimes [making up your own games] can just be fun." (Joel)

"I'll more happily muck around in a game that I know. Like I've got heaps of games in my steam library that I've never played, but I'd still probably be more inclined to open Fallout now rather than click on something I've never bothered installing." (Matt)

"The jumping on each other's heads was a little bit of a fluke. It was my dad and he was just jumping around checking out this room and I was just looking at the lights seeing if I could shoot them or something and he was like 'Hold still for a sec I want to try this.' And he just jumped on my head and at that point I didn't know. I couldn't see it and he was like 'Look at my screen.' And I realised he was on my head that was the part where we were laughing and I thought 'what happens if I move?' so I moved and he moved with me, so he could just stay still. And okay what happens if you turn around, so he could turn around 360 degrees. So you could shoot and throw grenades on my head,

	and I could walk. We would split the functions of what you do. Normally you do the moving and the shooting, but if I just do the moving and you do the shooting, or at least if I can just contribute to some of the shooting from my level, it was limiting my dad's ability to play the game. You can't just hide and do whatever, he had to stay grounded with me as we walked around, and of course that meant that he's reliant on where I walk. But that was fun. That's what was fun and interesting at that point. So it'd be kind of organic and we'd be let's just try this. So we'd just be jumping around and be 'What happens if we did this thing?' What if we threw the canister into that little jet propulsion thing and watch it float or such things." (Garret) "One, we didn't have that many games so we couldn't just go I'm bored with this one. Let's play another one. We kind of only had that and maybe a few other games. And second I guess it played into the nature of my brother and I's dynamic of liking to play in weird ways. There was something funny about trying to play in that way and adding in a physical challenge and the competitiveness of it" (Kaye)
Mastery	"Look at something like Speed Running where it's 'See how quickly I can beat this game.' It's adding that huge amount of challenge to it, especially with streaming – a lot of it is adding challenge to that game and saying 'I'm the best at that.' There's huge championship leagues and it's creating those really really challenging things to do for yourself." (Flynn) "I once played Spyro without ever really knowing what a speed run was, I just wanted to see how fast I could get through the game. So I'd skip out on so much stuff but got to the end of the game. That was the first time I'd ever revisited a childhood game

	and found that a game that in my mind took me months to finish, I finished in half a day" (Joel)
Prolong Play	"You're not going to let that feeling die just yet. You find videos or instructions, and decide that you are going to explore that next." (Amy)
	"Mike Myers usually happens where in the pre match lobby you agree on one person to go on one team and then the rest come on another and you set game rules that you only have one life and then once you die you change teams. So it's sort of like you're getting infected and respawning, and then what happens is there's an agreement that the player is Mike Myers, has to sit in one corner of the map and respawn for 30 seconds whilst everyone else goes away and hides. And then you run around the map and try and find everyone." (Isaac)
	"I'd really just heard about it through friends. It could have just been in a particularly friendly lobby and somebody was like 'Have you guys heard about Michael Myers?' and then it was like 'No.' Well I'll tell you and then we all migrated over to a custom game and it just sort of grew from that… I had this group of friends and that's all we would do. We wouldn't bother with any other game mode. It would be 'Do you want to play some Michael Myers? Sure that'd be great.' So you'd go and do that for a bit, then wander off and do something else for a bit." (Joel)
	"We formulate our own game modes a lot of the time" (Amy)
	"With Pokémon, sometimes I make challenges. Like at the moment, I'm running through Pokémon Leaf Green with just

Venusaur. Seeing if I can do it. I thought it would be a good challenge." (Brooke)

"Besides obviously being harder, there's that bitter disappointment where if you walk into a certain area where you know you can get your favourite Pokémon but you don't happen to find that Pokémon first, it's like tough luck, you have to capture this Pokémon. And it also in some ways forces diversity. Whenever I played through I never really stuck to a single theme of type or anything like that, I'd go by aesthetics or what I thought was a cool Pokémon but if someone were to go through and try and make the perfectly balanced team, in a Nuzlocke the chances of that happening are so tiny because you're at the mercy of whatever the game happens to throw at you and that you manage to catch. So it forces you to be flexible. In some ways it's not the best mode to play Pokémon for the very first time, but if you were just looking to experience Pokémon from a slightly different perspective if you got bored of going through and building the same team all the time, forcing yourself to get out of the box, then Nuzlocke does that because you have to think of the game differently. You can't really treat your Pokémon as if it's expendable. If it's dead it's gone so you have to take extra steps to ensure that if you pick a fight a) you could win it, but b) you could win it without losing a Pokémon that could be the keystone of your team. Obviously you need a HM slave for any Pokémon game. If your HM slave dies you have to somehow get another one, or convert an otherwise useful Pokémon into the new HM slave. It brings a new dynamic to the whole thing." (Joel)

"A lot of the time at the start when it was just me and brother at home and we only had a few times, it was like once you've

played a game a whole bunch of times you had to try to find a way to make it challenging again. So we used to play a lot of the Mario Party mini games but every time if say we were playing button bashing it would be whoever can press 'button A' the most times, and we'd say for this one you can only use your chin." (Kaye)

"…an experience with a mate, driving his motorbike into a helicopter… it took hours to set up but they eventually managed to pull that off." (Matt)

"I look for things that I probably shouldn't do and do them to a point of excess. For example, if I notice that a game designer has a signature quest NPC [(non-player character)] in an area that players have to go through at some point to be able to complete the quest, and obviously you can just sort of stand there and kill them if you're at a higher level in most MMOs. So there's stuff like that."

"I'll go back and play Kingdom Hearts or Fable 1 from the start… It's a combination of nostalgia and a comfort game. I know what I'm doing, I know that I'm gonna enjoy, I know the most optimal path to take. It's sort of like cruise through it and relish the skill that I've built up. Being able to tackle bosses sometimes a lot earlier than I should just because I've memorised the combination necessary to do damage and avoid getting killed myself." (Joel)

"There's technically a cyclical nature to it, so I think people find a way that works for them and stick with it. The way I do it is completely different. I've not met someone who starts with a character I start with and maybe that's a reflex thing too. I've

	done it hundreds of times so I know how to tackle it in that order." (Lachlan)

Social

Theme	Supporting Quotes
Community	"Any game where you have the opportunity to play with another person behind a computer screen or screen in general will be subject to their manner of play. Because, although games as strict as they may be, there will always be different types of players." (Amy) "There are a lot of glitches in Grand Theft Auto. I got all mine from Vanoss [on YouTube] and that sort of people, they always do glitches… every single video they have involves a little bit of random play then the rest would be exploiting glitches… They find the most ridiculous glitches." (Brooke) "Probably most of the time I tend to stick to the standard game mechanics. Except for when I'm playing with other people and we all just decide to do something." (Ethan) "…somebody was like 'Have you guys heard about Michael Myers?' and then it was like 'No.' Well I'll tell you and then we all migrated over to a custom game and it just sort of grew from that, because I know that between the time when I first heard about it and when I stopped playing Call of Duty, it sort of became, I had this group of friends and that's all we would do. We wouldn't bother with any other game mode. It would be 'Do you want to play some Michael Myers? Sure that'd be great.' So you'd go and do that for a bit, then wander off and do something else for a bit." (Joel)
Competition	"There is a very open world environment and what you do is largely player driven. I mean there is a narrative undercurrent, but

	you have a lot of freedom to make decisions in that space. And in Goldeneye pretty early you could choose your own goals and direction and you had a lot of choice in what you could do and the same sort of thing applies for Goldeneye, where in Goldeneye you have the ability to choose what kind of weapons you want to use in a certain match, and I remember having a lot of fun with my friends just mucking around and blowing each other up with mines." (Matt) "…friends and I have set rules like 'Don't use those...' Just fight with you broken sword or whatever you've got…" (Hunter)
Interactions	"We played Mario Cart… where you have to use 2 controllers at once and it was up to you how you did that. So you had to either have one in each hand and drive, or I found a way to do it with my hand and my feet at the same time. And we had some sort of point system for how well both your drivers had to do. So you could try and make one finish and then the other one, or it was we had our own creative control about our best tactic to win … that was one rule that we had to follow." (Kaye) "Its hilarious killing fish because they float when they die! Sometimes, a friend and I used to play together… we would just yell at each other from the other room and we would go on random quests here and there and kill all the small creatures on the way. "This is not your day, crow!" And we just do stupid stuff. That was fun." (Amy) "We kind of formulate our own game modes a lot of the time." (Amy) "In an MMO called Age of Conan, what you're meant to do is leave the tutorial as soon as you complete the story mission, but

I sort of didn't. Instead of stored up lots and lots of gold and why buying gear from outside the zone and sort of stayed there to grief and I probably amassed like 20000 kills over a few days like the main quest NPCs that every player in the game needed to funnel through. That's an example of not playing as intended." (Matt)

Spontaneous

Theme	Supporting Quotes
Engagement	"Its hilarious killing fish because they float when they die! Sometimes, a friend and I used to play together we would just yell at each other from the other room and we would go on random quests here and there and kill all the small creatures on the way. "This is not your day, crow!" And we just do stupid stuff. That was fun. It was more fun than it sounds!" (Amy) "I'd say I spent a month and a half after finished Lost and the Damned where I would go on rampages or do silly things, or even use the codes to summon giant helicopters and play around in that world and catch some really hilarious stuff on video… Personal machinima, yeah, I never would have shared any of that stuff…" (Lachlan) "There is a very open world environment and what you do is largely player driven. I mean there is a narrative undercurrent, but you have a lot of freedom to make decisions in that space. And in Goldeneye pretty early you could choose your own goals and direction and you had a lot of choice in what you could do and the same sort of thing applies for Goldeneye, where in Goldeneye you have the ability to choose what kind of weapons you want to use in a certain match, and I remember having a lot of fun with my friends just mucking around and blowing each other up with mines." (Matt)
Variation	"I like coming up with things to do. As weird as it sounds, I like to do jumps off mountains and see how far I can get… in anything really!" (Brooke)

"I think it sort of happens after. When I start a game I'm generally just there for the fun and engagement but after a while especially something as – if it starts getting a little bit monotonous then you start looking for ways to break out of the monotony, so I think that biggest things that's ever encouraged me to play a game as it's not meant to be played is, starts of as 'Oh look at this. This is sort of bugging a bit. I can kill this monster over and over again. And wait for a bit and it respawns and it's really good on XP or it's really good gold' or something like that. So it starts off relatively innocently but then you get further down the rabbit hole." (Matt)

Structure

Theme	Supporting Quotes
Control	“The game gives you the opportunity to play it any way you like, but the community has decided after much gameplay that that is the best way to play the game.” (Amy) “How far can I lead these people astray before the game tells me get back on course. I want to know what boundaries are set.” (Amy) “The developers make it clear to you how they would like you to play a game, but of course the user or the player is never gonna follow everything. They’ll find their own way.” (Hunter)
Objectives	“So we might play a round, let’s say my friend and I, and we’ll say, ‘let’s see who can get the most assists during a round’ instead of focusing on the objective or the kill rating.” (Ethan) “We basically were pretending that we’d never been given any weapons. And that’s the rule of the game. You don’t have a weapon. You never had one. You only have your fists, and somehow you have to survive against all odds with just your fists.” (Garret) “Yeah. You could spawn a vehicle that was a pickup truck or whatever and try and get it on top of a building and then you’d throw someone up and see if you could get them in.” (Isaac) “In an MMO called Age of Conan, what you’re meant to do is leave the tutorial as soon as you complete the story mission, but I sort of didn’t. Instead of stored up lots and lots of gold and why buying gear from outside the zone and sort of stayed there to

grief and I probably amassed like 20,000 kills over a few days like the main quest NPCs that every player in the game needed to funnel through. That's an example of not playing as intended." (Matt)

"What it turned out to be was that League of Legends noticed and they actually made a legit game out of it" (Dan)

"That's like what the creators want you to do, they want you to build a house or simulate a whole lifestyle while other people try and find the fastest way to kill your own Sim." (Dan)

"The first play through, I imagine, players are trying to soak up as much information as they can. With the second play through, players have already soaked up the first level of information and now they are ready to soak up another level of information from the game. So they try to find cheats, hints, glitches, secret passages and things like that, plus things they may have missed, or setting their own goals and intentions and stuff like that." (Dan)

"Probably most of the time I tend to stick to the standard game mechanics. Except for when I'm playing with other people and we all just decide to do something." (Ethan)

"See a lot of my time is enjoying the game for what it is rather than creating new elements within it, but of course when you play stuff like GTA or those very open free roaming games, of course you're going to go around on a mass murder spree just to see what happens." (Flynn)

"The one that instantly just is yelling out to me is Minecraft because when I first started playing Minecraft, it didn't add any

end game points with the stuff like Elder Dragon and things like that so it was very much you get into the game, you play the game and you try and do whatever you want to do. So I remember a lot of the early Minecraft players were a bit confused about what to do so the big thing everyone tried to do online was create rollercoasters for fun." (Matt)

Discretion

Theme	Supporting Quotes
Gameplay	"I cheat a lot in Sims…" (Brooke) "…where we tried to kill each other and dodge each others rocket launchers in the level-select area (where you can choose which level to go to), and we just started shooting at each other. So we continued using the game to play that little game for a bit of time afterward" (Dan) "There is one map, one level in the campaign, I cannot for the life of me remember, we found that there was some of these kassers they're like 44 gallon drums but they were glowing. We would try and push them and move them and try and make objects like a tetris block. So I would try and line things up. So I'd push some down so they laid down and I'd try and line them up into a gap and try and get my dad to push one of these things into a gap like a tetris line. The problem is that these explodes if they were touched or pushed too much, so we generally ended up with someone exploding and dying or exploding and falling off a corridor or a bridge. What was called a light bridge which was an interesting bridge. So we were trying to push these things together to make a line and it was a game of seeing if you could get it in without dying, otherwise you would die. Dying in Halo isn't a huge thing, you don't start from scratch. You literally just spawn right there and the other player just stays there, they just chill, and the other person just drops in after 5 seconds. So it's not a big problem when people die. It's not an issue and dying can be funny or fun. It can be stressful if there's a big fire fight. But things like where you've killed all the enemies in the entire area. Occasionally we'd just stop in the room and like 'Hey what

	if we …' and line up these stupid silly blocks or canisters to explode was one of them." (Garret)
Optional	"…achievement hunting is secondary stuff. Its almost what keeps you logging in." (Amy)
	"…with the rocket launcher in Unreal Tournament you could put 6 rockets in it and shoot along so if you rocket jump with that you could hit the artificial ceiling level." (Lachlan)
	"…in Skyrim they're shooting the cabbages and they're trying to shoot this cabbage down a huge hill into a basket. And it's creating that challenge that otherwise would not be there." (Flynn)
	"we would setup separate challenges for ourselves within the game world. Instead of playing through a level, it would be like the first person to get to the top, or the person that collected the most things, or killed the most things." (Amy)
	"And then we grew older, and then that became part of the game. It wasn't so much winning, it was stopping the other person." (Amy)
	"Sometimes I go on to Youtube and things to see what other people are doing, then I think 'Oh I'll try that'." (Brooke)
	"Challenge modes are a big thing. Every single game has a challenge mode of some sort that players create themselves." (Brooke)
	"With Pokémon, sometimes I make challenges. Like at the moment, I'm running through Pokémon Leaf Green with just

Venusaur. Seeing if I can do it. I thought it would be a good challenge. And everyone makes fun of Venusaur, so I thought I'd prove them wrong!" (Brooke)

"I always see these things happen, cause when you're playing a mission its the first time you realise it, like "wow, ATVs make you fall off really easily… I wonder how long I can go for on it"? So I usually try it out after the mission is finished." (Brooke)

"Sometimes especially in multiplayer contexts for example in Chivalry where you're playing with a group of people you're quite comfortable with, you might say to everyone 'Oh lets just use our fists for this round'. So its kind of a secondary decision that the group has made sort of thing." (Ethan)

"The other one, by far the most stressful one, but we still did it was trying to run through the entire map without killing anyone and having every one chase you. It wasn't always possible in that one, cause you couldn't always get through. But basically you were just capturing everyone and they were all following you like a massive horde." (Garret)

"Or cause you're playing with friends you're just sort of mucking around, so we'd try and kill people in humiliating ways with things that you probably shouldn't kill them with. Like for instance you'd be trying to kill someone by running then over with a jeep, but you wouldn't just run over them, you'd have to get out of the jeep and coast it into them. You'd line them up from ages away and you'd be driving along as fast as you could and you'd get out and just watch the jeep going and hit them." (Hunter)

"You could spawn a vehicle that was a pickup truck or whatever and try and get it on top of a building and then you'd throw someone up and see if you could get them in." (Isaac)

"[Nuzlocke Challenge is] playing [Pokémon] on super hard mode. Instead of your Pokémon feinting and being able to restored, if your Pokémon feints, uses all its HP then it's considered dead, and you have to release it never to be used again. And also you can't recapture it. And ever since it's become some popular, people have given it more flavour, like further restrictions, not being able to have two Pokémon of the same type, that kind of thing… there's that bitter disappointment where if you walk into a certain area where you know you can get your favourite Pokémon but you don't happen to find that Pokémon first, it's like tough luck, you have to capture this Pokémon. And it also in some ways forces diversity. Whenever I played through I never really stuck to a single theme of type or anything like that, I'd go by aesthetics or what I thought was a cool Pokémon but if someone were to go through and try and make the perfectly balanced team, in a Nuzlocke the chances of that happening are so tiny because you're at the mercy of whatever the game happens to throw at you and that you manage to catch. So it forces you to be flexible. In some ways it's not the best mode to play Pokémon for the very first time, but if you were just looking to experience Pokémon from a slightly different perspective if you got bored of going through and building the same team all the time, forcing yourself to get out of the box, then Nuzlocke does that because you have to think of the game differently. You can't really treat your Pokémon as if it's expendable. If it's dead it's gone so you have to take extra steps to ensure that if you pick a fight a) you could win it, but b) you could win it without losing a Pokémon that could be the keystone of your team.

Obviously you need a HM slave for any Pokémon game. If your HM slave dies you have to somehow get another one, or convert an otherwise useful Pokémon into the new HM slave. It brings a new dynamic to the whole thing." (Joel)

"if we had people around for Super Smash Brothers, was after playing a few rounds normally, we had weird rules like who the person sitting to your left had to play as. So you'd pick all the worst characters that you could to try and give them a handicap like so we had a round that was 3 Jiggly Puffs and Ice Climbers and Peach and it's just everyone's horrible at the game, but you're trying to be the least horrible with a bad character." (Kaye)

"…in Dark Souls it seems like it's very similar to the 3 heart challenge in Zelda. Now I'm not sure what the parameters are, I wonder if they play without a shield or not. And to be honest the armour is negligible in Dark Souls, even if you have your shield up and you get hit, it's gonna hurt you. You can't survive to many hits like that, and maybe it's a psychological thing. It reminds me when I played World of Warcraft. Everyone would trade Level One backs and they'd run them naked to the town where they'd hit the auction house so you'd always have a cavalcade of naked characters everywhere." (Lachlan)

"The tutorial is you have this whole open mansion and you go through this obstacle course which is pretty easy it teaches you the basics of the game and then I think it was a 2 storey mansion to explore and then there was a maze but everywhere you went this butler was following you and like what is this. And you go in the pantry and suddenly you realise that you can close the pantry so it doesn't take a genius to go 'Hey I could get rid of the butler.'" (Lachlan)

"I set all sorts of ridiculous challenges like during some games I'll randomly decide I'm not allowed to get hit at this point and so I'll do a whole boss and if I do any damage I'll load a quick save and go back a bit and keep fighting the boss until it dies and I come through it flawlessly." (Matt)

"You walk around next to rivers and you see how many people you can push into the river. Before the the guards come and they try and kill you. So you'll save your game and you'll stand next to a well or something and the guards will all run towards you and you'll turn around and you'll push them into the well. It's the best thing in the world." (Isaac)

APPENDIX C: Frequency of Emerging Themes